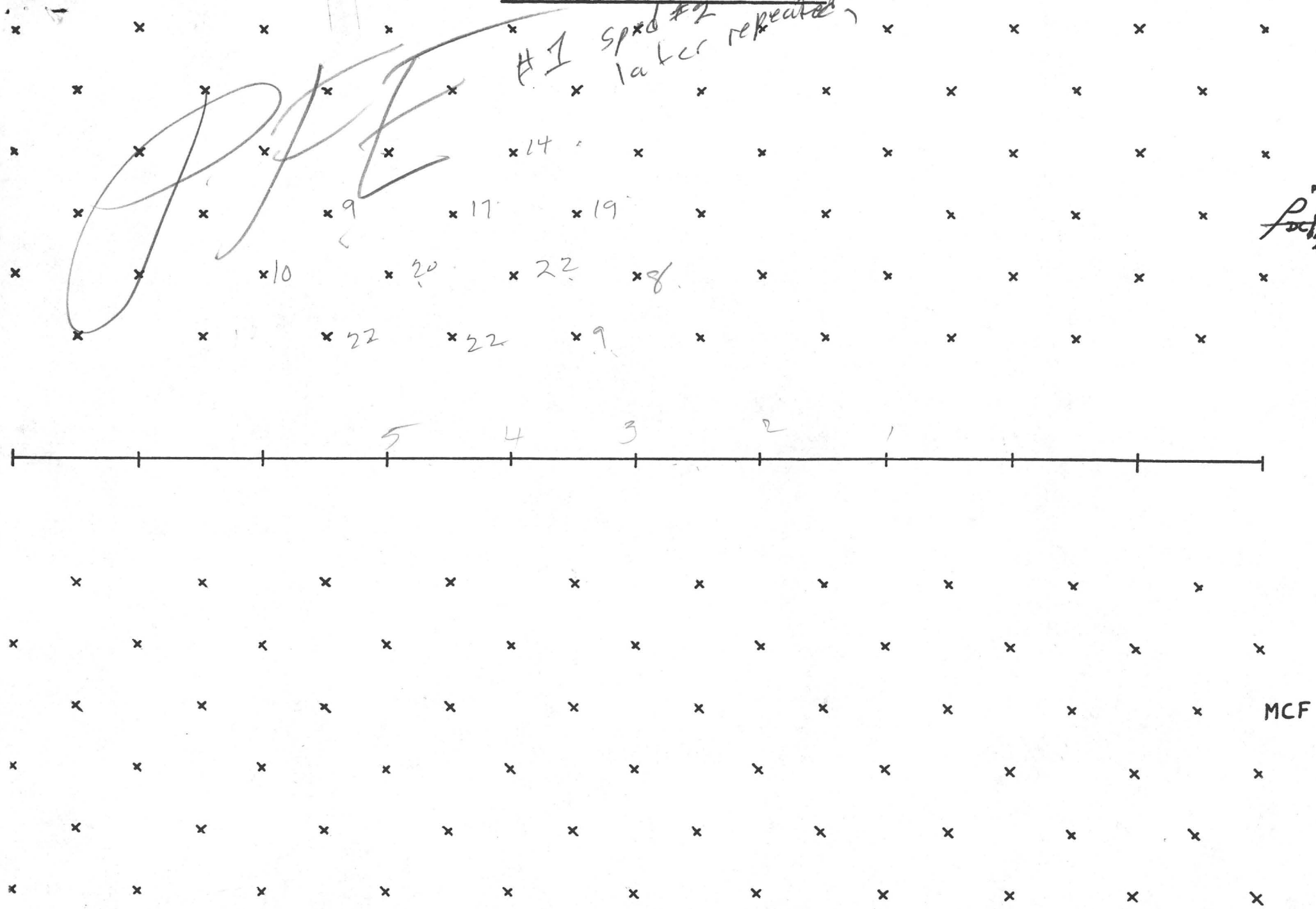
INDUCED POLARIZATION WORK SHEET



Area _____ Scale _____ Date _____

INDUCED POLARIZATION - RECEIVER NOTES PAGE

Project: Sierrita Line: 1 Spd 2 W 1/2 Int.Cal 50.2 Date: 15/June

Bat V = 11.0

Send	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2	4-5	3-4	2-3
Rec.	15W-1W	→	1-1.5	→	→	1.5-2						
Time	1203	1206	12:20	12:22	12:24	12:40	12:55	12:57	13:00	13:10	13:12	
DC-1	39.6 39.6	17.7 17.3	52.0 52.0	11.9 11.9	7.10 7.10	87.0 87.0	14.7 14.7	5.00 5.08	3.25 3.25	20.2 20.1	4.60 4.55	
DC-2	40.0 40.0	17.1 17.3	54.3 54.3	12.0 12.0	7.05 7.12	85.5 85.5	15.0 15.0	4.90 4.85	3.32 3.32	20.3 20.2	4.50 4.60	
Σ	79.6 79.6	34.8 37.6	106.3 106.3	23.9 23.9	14.15 14.22	172.5 172.5	29.7 29.7	9.90 9.93	6.57 6.57	40.5 40.3	9.10 9.15	
DC-3	40.0 40.0	17.8 17.8	52.0 51.8	12.0 12.0	7.05 7.08	87.0 87.0	14.5 14.5	5.02 5.00	3.25 3.20	20.1 20.1	4.55 4.55	
Dc-4	39.5 39.5	17.1 17.1	54.5 54.5	11.9 11.9	7.15 7.15	85.5 85.5	15.1 15.1	4.95 4.95	3.38 3.40	20.3 20.3	4.60 4.50	
Σ	79.5 79.5	34.8 34.9	106.5 106.3	23.9 23.9	14.20 14.15	172.5 172.5	29.6 29.6	9.97 9.95	6.63 6.60	40.4 40.4	9.15 9.05	
DC-AV	79.5	34.8	106.3	23.9	14.18	172.5	29.6	9.94	6.59	40.4	9.11	
AC-1	38.0	16.7	45.2	10.2	6.18	67.0	12.9	4.39	3.00	19.2	4.37	
AC-2	38.0	16.7	45.5	10.2	6.20	68.2	12.9	4.45	5.02	19.1		
Σ	76.0	33.4	90.7	20.4	12.38	135.2	25.8	8.84	6.02	38.3	8.74	
S. P.	+17.1		+13.7	+4.2		+12.5						
AC-N					.04	see Bat.			.10			
VDC/VAC	1.045	1.041	1.171	1.171	1.145	1.170	1.150	1.121	1.092	1.055	1.045	

INDUCED POLARIZATION - RECEIVER NOTES PAGE

Project: Sierrita Line: #1 Spl d#2 W/m Int.Cal Date: 15 [illegible]

Send							4-5					
Rec.							Cal					
Time							11:56	1158	1200			
DC-1							14.3	33.8	72.0			
DC-2							14.4	34.0	71.8			
Σ							28.7	67.8	143.8			
DC-3							14.3	33.8	72.0			
Dc-4							14.4	34.0	71.8			
Σ							28.7	67.8	143.8			
DC-AV							28.7	67.8	143.8			
AC-1							15.2	35.5	73.0			
AC-2							14.8	35.0	72.8			
Σ							30.0	70.5	145.8			
S. P.												
AC-N												
							1.045	1.040	1.015	use	1.04	

INDUCED POLARIZATION SENDER NOTES

Project: Sierrita Line: #1 Spread 2 W. ½ Date: 6/15/62

Send	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2	4-5	3-4	2-3
Receive	.5-1.0 W	→	1.-1.5 W	→	→	1.5-2.0 W	→	→	→	2.0-2.5 W	→	
Time	12:03	12:06	12:20	12:22	12:24	12:40	12:55	12:57	13:00	13:10	13:12	
current Range	1400 1410 1400	1450 1450 1450	1350 1360 1350	1400 1410 1400	1450 1450 1450	1400 1400 1400	1350 1360 1350	1400 1410 1400	1440 1440 1440	1400 1400 1400	1325 1325	
Current	1403	1450	1353	1403	1450	1400	1353	1403	1440	1400	1325	
Send	1-2	4-5	3-4	2-3	1-2		Cal	4-5				
Receive	2.0-2.5 W	2.5-3.0 W	→	→	→							
Time							11:56	11:58	12:00			
current Range							.30	.75	1.50			
Current							300 300 300	690 690 690	1425 1425 1425			

RANGE 1.50

300 690 1425

HEINRICHS GEOEXPLORATION COMPANY

INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Page_____

Project_____ Line_____ Field date_____ Data page_____ Comp. date_____. Comp by_____

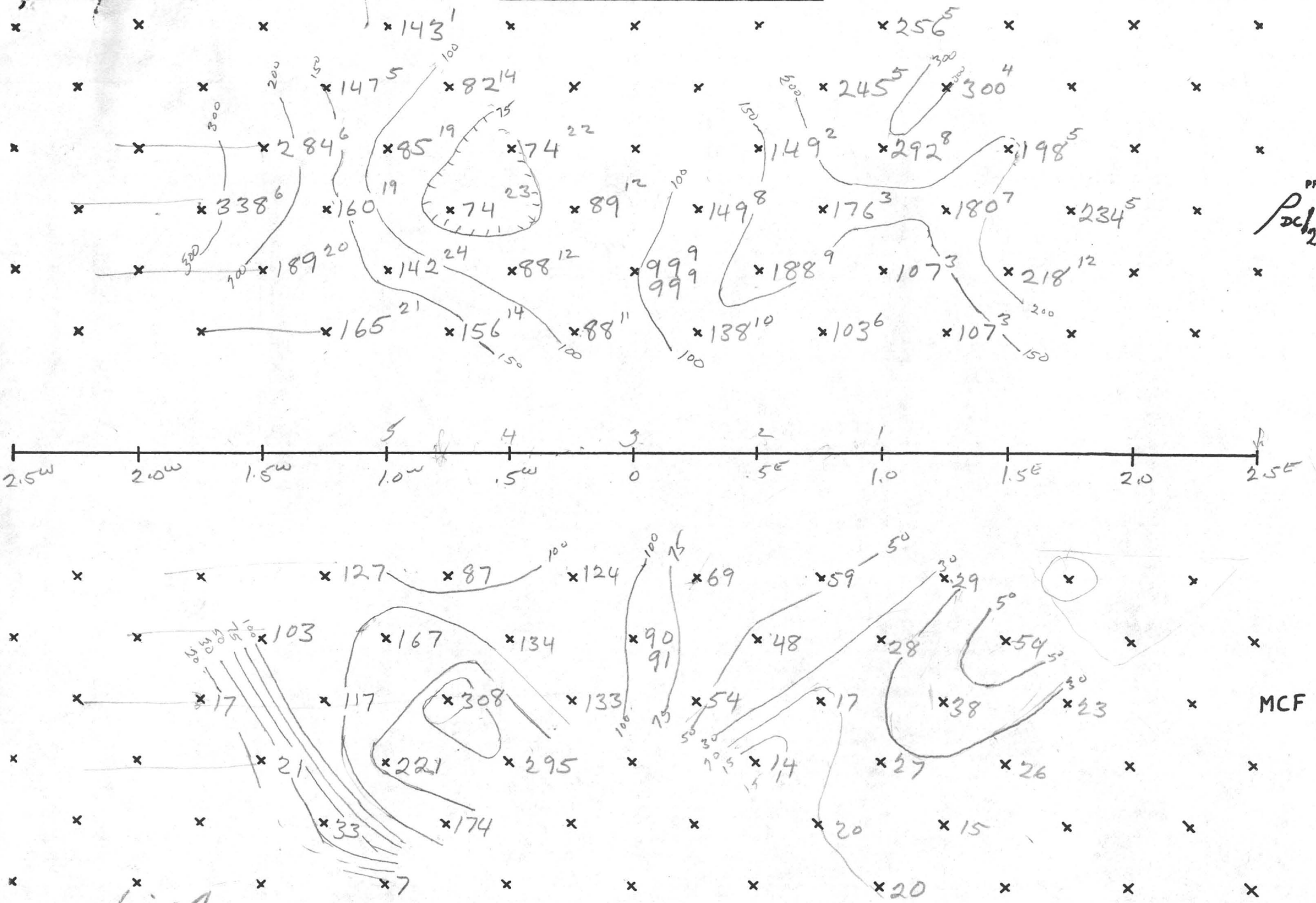
(A) Send												
(B) Receive												
(C) n separation												
(D) I												
(E) Vdc (avg)												
(F) DCcal												
(G) Kn x 10^{-3}												
(H) ρdc=ExFxGx10^3/D												
(I) Vac Σ												
(J) AC noise x 2												
(K) Vac(corr) =$\sqrt{I^2 - J^2}$												
(L) AC-DC cal.												
(M) ρ dc/ρac=ExL/K												
(N) PFE=(M-1)(10^2)	1.087	1.082	1.219	1.219	1.191	1.219	1.195	1.167	1.138	1.098	1.087	
(O) MCF=(M-1)(10^5)/H	9	8	22	22	19	22	20	17	14	10	9	

Project_____ Line_____ Field date_____ Data page_____ Comp. date_____ Comp by_____

(A) Send												
(B) Receive												
(C) n separation												
(D) I												
(E) Vdc (avg)												
(F) DCcal												
(G) Kn x 10^{-3}												
(H) ρ dc=ExFxGx10^3/D												
(I) Vac Σ												
(J) AC noise x 2												
(K) Vac (corr) =$\sqrt{I^2 - J^2}$												
(L) AC-DC cal.												
(M) ρdc/ρac =ExL/K												
(N) PFE=(M-1)(10^2)												
(O) MCF=(M-1)(10^5)/H												

Line 4

INDUCED POLARIZATION WORK SHEET



Area Sierrita (Sec # 6) Line 4 Scale 1" = 500' Date 13/June/62

INDUCED POLARIZATION - RECEIVER NOTES PAGE 2

Project: SIERRITA Line: 4 East 1/2 Int.Cal _____ Date: _____

*13.0

Send	4-5	1-2	2-3	3-4	4-5	S.P	CAL-2			CAL-2		
Rec.	2-25	2.5-38	→	→	→	0-0.5°						
Time	12:26	12:35	12:37	12:40	12:42		11.25	11:27	11:29	12:54	12:56	12:57
DC-1 1	3.40	10.3	4.50	4.20	2.11	Base pot	14.8	33.5	69.5	14.5	33.0	69.5
3	3.40	10.3	4.50	4.21	2.11							
DC-2 2	3.15	10.7	4.75	3.95	2.17	at 0	14.6	33.2	69.0	14.5	33.0	69.0
4	3.15	10.7	4.72	3.90	2.16							
Σ	6.55	21.0	9.25	8.15	4.28		29.4	66.7	138.5	29.0	66.0	138.5
	6.55	21.0	9.22	8.11	4.27							
DC-3 5	3.32	10.3	4.52	4.23	2.10		14.8	33.5	69.5	14.5	33.0	69.5
7	3.35	10.2	4.55	4.25	2.10							
Dc-4 6	3.20	10.7	4.70	3.86	2.16		14.6	33.2	68.8	14.5	33.0	69.0
8	3.15	10.8	4.65	3.82	2.18							
Σ	6.52	21.0	9.22	8.09	4.26		29.4	66.7	138.3	29.0	66.0	138.5
	6.50	21.0	9.20	8.07	4.28							
DC-AV	6.53	21.0	9.22	8.11	4.27		29.4	66.7	138.4	29.0	66.0	138.5
AC-1	3.20	10.3	4.50	4.00	2.09		15.1	35.0	70.5	14.9	34.5	70.5
AC-2	3.20	10.2	4.52	4.00	2.09		14.9	34.7	70.0	14.9	34.0	70.5
Σ	6.40	20.5	9.02	8.00	4.18		30.0	69.7	140.5	29.8	68.5	141.0
S. P.		-7.5				-107.3						
AC-N	.03				.10							

INDUCED POLARIZATION SENDER NOTES

Project: Sierrita Line: #4 EAST ½ Date: 12/JUNE/62

Send	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5	1-2	2-3	3-4
Receive	3.5-1E	→	1.0-1.5 E E	→	→	1.5-2.0 E E	→	→	→	2.0-2.5 E E	→	→
Time	11:33	11:35	11:49	11:51	11:53	12:05	12:06	12:08	12:10	12:19	12:21	12:24
Range	1.50	→	→	→	→	→	→	→	→	→	→	→
Current	1450 1450 1440	1425 1425 1425	1440 1440 1425	1425 1425 1425	1425 1425 1425	1375 1375 1375	1400 1400 1400	1410 1410 1410	1425 1425 1425	1375 1390 1375	1400 1400 1400	1425 1425 1425
Send	4-5	1-2	2-3	3-4	4-5		Cal.	1-2				
Receive	2.0-2.5 E E	2.5-3.0 E E	→	→	→							
Time	12:26	12:35	12:37	12:40	12:42		11:25	11:27	11:29	12:54	12:56	12:57
Range	1.50	→	→	→	→		.30	.75	1.50	.30	.75	1.50
Current	1400 1400 1400	1350 1350 1350	1400 1400 1400	1425 1425 1410	1400 1400 1400		300 300 300	675 675 675	1375 1375 1360	300 300 300	650 650 650	1350 1350 1350

INDUCED POLARIZATION - RECEIVER NOTES

PAGE 1

Project: SIERRITA Line: #4 E½ Int.Cal 50.0 Date: 6-12-6

AC Ro + 13.0 ★13.15

Send	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5	1-2	2-3	3-4
Rec.	.5E-1E	→	1-1.5E	—	→	1.5-2E	—	—	→	2-2.5E	—	—
Time	11:33	11:35	11:49	11:51	11:53	12:05	12:06	12:08	12:10	12:19	12:21	12:24
DC-1	1 66.0	11.6	49.5	22.8	7.05	49.0	12.2	8.0	3.50	25.5	8.3	6.8
	3 66.0	11.7	49.5	22.8	7.05	49.0	12.2	8.0	3.50	25.4	8.3	6.8
DC-2	4 66.5	11.8	49.2	21.6	7.12	49.5	12.8	8.5	3.55	24.4	8.5	7.05
	4 66.5	11.7	49.0	21.9	7.12	49.5	12.8	8.6	3.55	24.3	8.4	7.05
Σ	132.5	23.4	98.7	44.4	14.17	98.5	25.0	16.5	7.05	49.9	16.8	13.85
	132.5	23.4	98.5	44.7	14.17	98.5	25.0	16.6	7.05	49.7	16.7	13.85
DC-3	5 66.0	11.7	49.5	22.8	7.05	49.0	12.2	7.9	3.50	25.4	8.4	6.8
	7 66.0	11.7	49.5	22.8	7.05	48.5	12.2	7.9	3.48	25.5	8.4	6.75
Dc-4	6 66.5	11.7	49.0	21.9	7.12	49.5	12.8	8.6	3.55	24.3	8.4	7.05
	8 66.6	11.7	49.0	21.9	7.12	49.5	12.8	8.6	3.58	24.3	8.4	7.15
Σ	132.5	23.4	98.5	44.7	14.17	98.5	25.0	16.5	7.06	49.7	16.8	13.85
	132.5		98.5	44.7	14.17	98.0	25.0	16.5	7.05	49.8		13.90
DC-AV	132.5	23.4	98.5	44.7	14.17	98.4	25.0	16.5	7.05	49.8	16.8	13.86
AC-1	62.5	11.1	48.0	21.0	6.75	49.2	12.5	8.2	3.55	22.9	8.1	6.62
AC-2	62.0	11.0	47.5	21.2	6.75	49.0	12.5	8.3	3.55	23.0	8.1	6.62
AC Σ	124.5	22.1	95.5	42.2	13.50	98.2	25.0	16.5	7.10	45.9	16.2	13.24
S. P.	+2.9					-2.2				+13.0		
AC-N		.08			.10				.08			

HEINRICHS GEOEXPLORATION COMPANY

INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Page _____

Project Sierrita Line #A-E 1/2 Field date 6/12/82 Data page 1 Comp. date 6/13/82, Comp by _____

(A) Send	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5	1-2	2-3	3-4
(B) Receive	.5E-1E	→	1.-1.5E	→	→	1.5-2E	—	—	→	2.-2.5E	—	—
(C) n separation	1	2	1	2	3	1	2	3	4	2	3	4
(D) I	1445	1425	1433	1425	1425	1375	1400	1410	1425	1375	1400	1425
(E) Vdc (avg)	132.5	23.4	98.5	44.7	14.17	98.4	25.0	16.5	7.05	49.8	16.8	13.86
(F) DCcal	1.000	—	—	—	—	—	—	—	—	—	—	→
(G) Kn x 10^{-3}	1.5	6	1.5	6	15	1.5	6	15	30	6	15	30
(H) ρdc=ExFxGx10^3/D	138	99	103	188	149	107	107	176	149	218	180	292
(I) Vac Σ												
(J) AC noise x 2												
(K) Vac(corr) = $\sqrt{I^2 - J^2}$	124.5	22.1	95.5	42.2	13.50	98.2	25.0	16.5	7.10	45.9	16.2	13.24
(L) AC-DC cal.	1.030	—	—	—	—	—	—	—	—	—	—	→
(M) ρdc/ρac=ExL/K	1.095	1.090	1.061	1.090	1.080	1.031	1.030	1.030	1.021	1.118	1.068	1.079
(N) PFE=(M-1)(10^2)	10	9	6	9	8	3	3	3	2	12	7	8
(O) MCF=(M-1)(10^5)/H	69	91	59	48	54	29	28	17	14	54	38	27

Project _____ Line _____ Field date _____ Data page _____ Comp. date _____ Comp by _____

(A) Send	4-5	1-2	2-3	3-4	4-5		1-2	—	—	—	—	→
(B) Receive	→	2.5-3E	—	—	→	0-0.5E	DAL	—	—	—	—	→
(C) n separation	5	3	4	5	6							
(D) I	1400	1350	1400	1417	1400		300	675	1367	300	650	1250
(E) Vdc (avg)	6.53	21.0	9.22	8.11	4.27		29.4	66.7	138.9	29.0	66.0	138.5
(F) DCcal	1.000	—	—	—	→		1.020	1.011	.988	1.034	.985	.975
(G) Kn x 10^{-3}	52.5	15	30	52.5	84		AVG DC cal = 1.002 USE 1.000					
(H) ρdc=ExFxGx10^3/D	245	234	198	300	256							
(I) Vac Σ												
(J) AC noise x 2												
(K) Vac (corr) = $\sqrt{I^2 - J^2}$	6.40	20.5	9.02	8.00	4.18		30.0	69.7	140.5	29.8	68.5	141.0
(L) AC-DC cal.	1.030	—	—	—	→		1.020	1.045	1.015	1.029	1.036	1.019
(M) ρdc/ρac =ExL/K	1.050	1.053	1.051	1.044	1.050		Avg	AC Cal	= 1.027			
(N) PFE=(M-1)(10^2)	5	5	5	4	5				USE 1.030			
(O) MCF=(M-1)(10^5)/H	20	23	26	15	20							

→ 50% 35% 70%

INDUCED POLARIZATION - RECEIVER NOTES PAGE 1

Project: Sierrita Line: #4 - W/2 Int.Cal 49.5 Date: 12 June

Send		2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2	4-5	3-4	2-3
Rec.		0.5"-1.0"	→	1.0-1.5"	→	→	1.5-2.0"	→	→	→	2.0-2.5"	→	→
Time		14:03	14:05	14:22	14:23	14:25	14:35	14:44	14:46	14:48	15:00	15:03	15:05
DC-1	1	40.2	11.3	73.0	10.0	4.05	74.5	16.5	3.50	1.75	21.8	7.2	1.90
	3	40.3	11.4	73.0	9.6	4.05	74.0	16.1	3.60	1.78	21.9	7.2	1.80
DC-2	2	41.8	11.1	74.0	10.8	4.00	79.0	17.1	3.25	1.56	22.3	7.7	1.95
	4	41.5	11.3	74.0	10.8	4.00	79.0	17.0	3.25	1.53	22.2	7.65	2.00
Σ		82.0	22.4	147.0	20.8	8.05	153.5	33.6	6.75	3.31	44.1	14.90	3.85
		81.7	22.7	147.0	20.4	8.05	153.0	33.1	6.85	3.31	44.1	14.85	3.80
DC-3	5	40.6	11.3	73.0	9.9	4.05	74.5	16.5	3.55	1.80	21.9	7.25	1.78
	7	40.5	11.3	73.0	9.9	4.08	75.0	16.5	3.58	1.81	21.8	7.30	1.80
Dc-4	6	41.5	11.3	74.0	10.8	4.00	79.0	17.0	3.30	1.50	22.2	7.60	2.00
	8	41.5	11.3	74.0	10.8	3.98	79.5	17.0	3.25	1.49	22.3	7.60	2.00
Σ		82.0	22.6	147.0	20.7	8.05	153.5	33.5	6.85	3.30	44.1	14.85	3.78
		82.0		147.0	20.7	8.06	154.5	33.5	6.83	3.30	44.1	14.90	3.80
DC-AV		82.2	22.6	147.0	20.6	8.05		33.4	6.82	3.31	44.1	14.88	3.88
AC-1		38.2	10.7	66.7	9.5	3.70	53.0	13.9	2.85	1.40	19.0	6.45	1.68
AC-2		38.2	10.7	66.5	9.5	3.72	60.5	13.9	2.88	1.40	19.0	6.45	1.68
AC Σ		76.4	21.4	133.2	19.0	7.42	113.5	27.8	5.73	2.80	38.0	12.90	3.36
S. P.		-40Ω		+39Ω			+18.3			(7.7) -11.4			
AC-N			.10			.08				.04			

INDUCED POLARIZATION - RECEIVER NOTES PAGE 2

Project: SIERRA Line: 6 - W ½ Int.Cal 49.5 Date: 6-12-62

Send		1-2	4-5	3-4	2-3	1-2	S.P	4-5			4-5		
Rec.		20-25W	25-30W	→	→	→	6-5W	Cal			CAL	→	
Time		15:08	16:19	15:21	15:23	15:45		13.54	13.56	13.58	15:43	15:45	15:47
DC-1	1	1.16	1.58	6.50	1.85	1.15	Busy	14.3	32.5	72.0	14.3	32.2	72.0
	3	1.13	1.58	6.50	1.83	1.15	pot						
DC-2	2	0.96	1.57	6.80	2.00	1.15	out	14.2	32.5	72.5	14.3	32.2	71.5
	4	0.99	1.56	6.75	1.98	1.12							
Σ		2.12	3.15	13.30	3.85	2.30	0	28.5	65.0	144.5	28.6	64.4	143.5
		2.12	3.14	13.25	3.81	2.27							
DC-3	5	1.11	1.58	6.80	1.83	1.18		14.3	32.5	72.0	14.3	32.2	71.8
	7	1.17	1.57	6.80	1.81	1.18							
Dc-4	6	0.95	1.55	6.48	1.98	1.10		14.2	32.5	72.5	14.3	32.2	71.0
	8	0.91	1.55	6.48	2.02	1.10							
Σ		2.06	3.13	13.28	3.81	2.28		28.5	65.0	144.5	28.6	64.4	142.9
		2.08	3.12	13.28	3.83	2.28							
DC-AV		2.10	3.14	13.28	3.83	2.28		28.5	65.0	144.5	28.6	64.4	143.1
AC-1		.95	15.3	6.45	1.88	1.15		14.8	34.0	73.8	14.9	34.2	73.0
AC-2		.95	15.3	6.45	1.89	1.15		14.5	33.8	73.0	14.5	34.0	73.0
Σ		1.89	3.06	12.90	3.77	2.30		29.3	67.8	146.8	29.4	68.2	146.0
S. P.			-1.1				-8.3						
AC-N		.10			.10								

INDUCED POLARIZATION SENDER NOTES

Project: Sierrita Line: ~~#4~~ WEST ½ Date: 12 JUNE 67

Send	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2	4-5	3-4	2-3
Receive	W .5-1	→	W 1.0-1.5	→	→	W 1.5-2.0	→	→	→	W 2.0-2.5	→	→
Time	14:03	14:05	14:22	14:23	14:25	14:35	14:44	14:46	14:48	15:00	15:03	15:05
Range	1.50	→	→	→	→	→	→	→	→	→	→	→
Current	1400 1400 1400	1375 1375 1376	1425 1425 1410	1400 1400 1400	1350 1350 1350	1400 1400 1400	1425 1425 1410	1390 1390 1390	1350 1350 1350	1410 1400 1400	1400 1400 1400	1375 1375 1375

Send	1-2	4-5	3-4	2-3	1-2		Cal	4-5				
Receive	W 2.0-2.5	W 2.5-3.0	→	→	→							
Time	15:08	15:19	15:21	15:23	15:25		13:54	13:56	13:58	15:43	15:45	15:47
Range	1.50	→	→	→	→		.30	.75	1.50	.30	.75	1.50
Current	1350 1350 1350	1400 1400 1390	1400 1400 1400	1365 1365 1365	1325 1325 1325		300 300 300	650 650 650	1425 1410 1410	290 290 290	650 650 650	1390 1390 1390

1390

HEINRICHS GEOEXPLORATION COMPANY

INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Page _____

Project Sierrita Line #4 - W½ Field date 6/12/62 Data page 2 Comp. date 6/13/62 Comp by _____

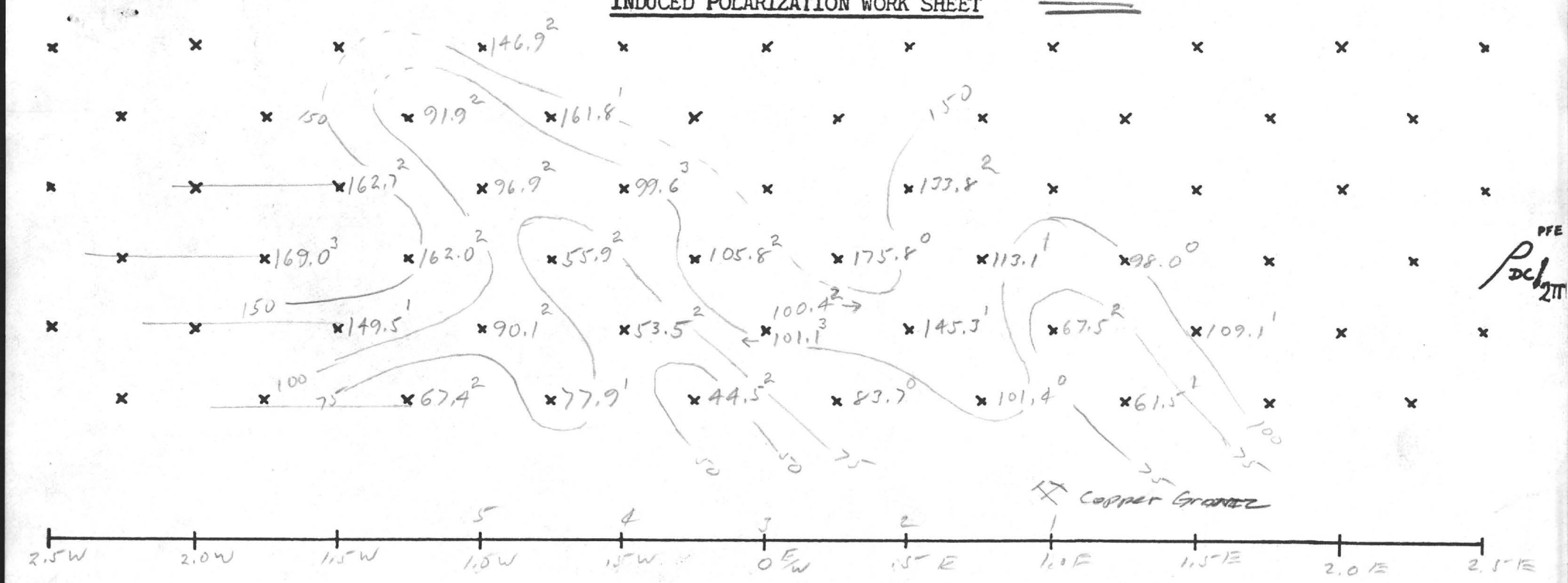
(A) Send	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2	4-5	3-4	2-3
(B) Receive	0.5W-1.0W	→	1.0-1.5W	→	→	1.5-2.0W	→	→	→	2.0-2.5W	→	→
(C) n separation	1	2	1	2	3	1	2	3	4	2	3	4
(D) I	1400	1375	1418	1400	1350	1400	1418	1390	1350	1400	1400	1375
(E) Vdc (avg)	82.2	22.6	147.0	20.6	8.05	154.1	33.4	6.82	3.31	44.1	14.88	3.88
(F) DCcal	1.000	→	→	→	→	→	→	→	→	→	→	→
(G) Kn x 10^{-3}	1.5	6	1.5	6	15	1.5	6	15	30	6	15	30
(H) ρdc=ExFxGx10^3/D	88	99	156	88	89	165	142	74	74	189	160	85
(I) Vac Σ												
(J) AC noise x 2												
(K) Vac(corr) = $\sqrt{I^2 - J^2}$	76.4	21.4	133.2	19.0	7.42	131.0	27.8	5.73	2.80	38.0	12.90	3.36
(L) AC-DC cal.	1.030	→	→	→	→	→	→	→	→	→	→	→
(M) ρdc/ρac=ExL/K	1.109	1.089	1.136	1.118	1.118	1.210	1.237	1.228	1.218	1.195	1.188	1.188
(N) PFE=(M-1)(10^2)	11	9	14	12	12	21	24	23	22	20	19	19
(O) MCF=(M-1)(10^5)/H	124	90	87	134	133	127	167	308	295	103	117	221

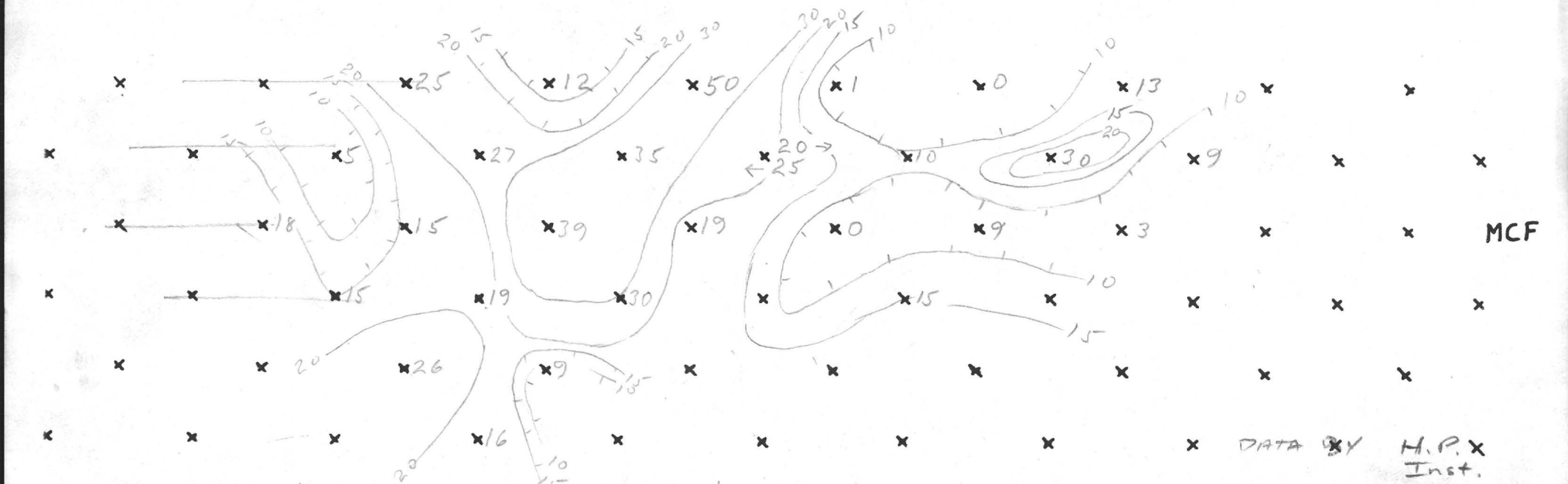
Project _____ Line _____ Field date _____ Data page 50 Comp. date _____ Comp by _____

(A) Send	1-2	4-5	3-4	2-3	1-2		4-5	→	→	→	→	→
(B) Receive	2.0-2.5W	2.5-3.0W	→	→	→		CAL	→	→	→	→	→
(C) n separation	5	3	4	5	6							
(D) I	1350	1395	1400	1365	1325		300	650	1418	290	650	1390
(E) Vdc (avg)	2.10	31.4	13.25	3.83	2.26		28.5	65.0	144.5	28.6	64.4	143.1
(F) DCcal	1.000	→	→	→	→		1.051	1.000	.983	1.015	1.008	972
(G) Kn x 10^{-3}	52.5	15	30	52.5	84		AVG DC = 1.010 USE 1.000					
(H) ρdc=ExFxGx10^3/D	182	338	284	147	143							
(I) Vac Σ												
(J) AC noise x 2												
(K) Vac (corr) = $\sqrt{I^2 - J^2}$	1.89	30.6	12.90	3.77	2.30		29.3	67.8	146.8	29.4	68.2	146.0
(L) AC-DC cal.	1.030	→	→	→	→		1.029	1.041	1.015	1.028	1.058	1.019
(M) ρdc/ρac =ExL/K	1.143	1.059	1.059	1.048	1.010			Avg.	1031	USE 1.030		
(N) PFE=(M-1)(10^2)	14	6	6	5	1							
(O) MCF=(M-1)(10^5)/H	174	17	21	33	7							
							50%	34%	73%	50%	34%	73%

Repeat Line 2 - Sp. 1 H.P.

INDUCED POLARIZATION WORK SHEET





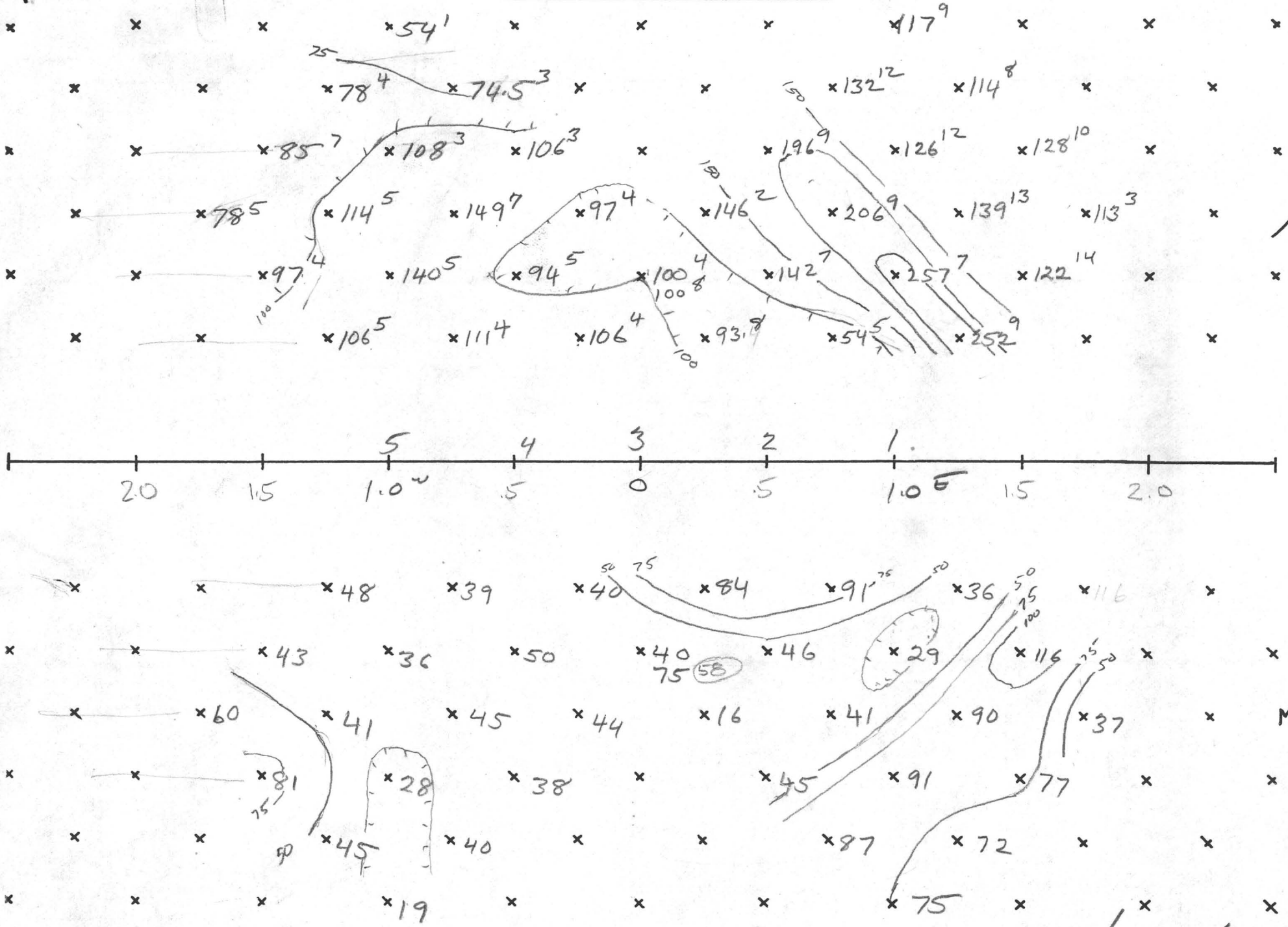
DATA BY H.P. X Inst.

Area W. Sierrita - Line 2. Sp. 1 - E ½ W ½ Scale 1" = 500' Date 8/14/62

Repeat

Looking N Line 3

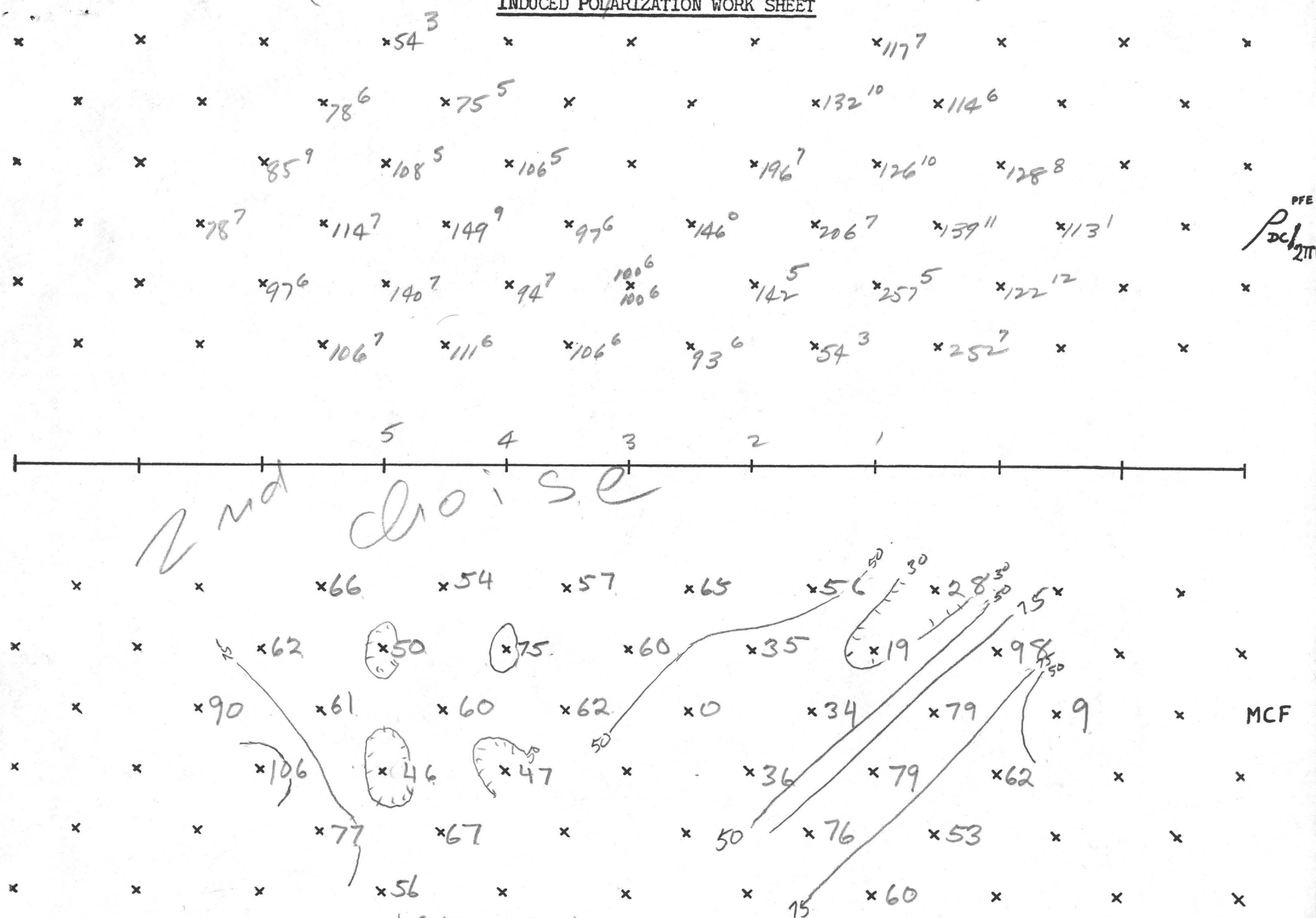
INDUCED POLARIZATION WORK SHEET



Area Line # 3 Sierrita Scale 1" = 500' Date 6/June/62.

(+2 PFE) Looking N (-2 PFE)

INDUCED POLARIZATION WORK SHEET



Area Sierrita Line 3 (Arbitrary PFE Corrected) Scale 1" = 500' Date 6/6/62

INDUCED POLARIZATION - RECEIVER NOTES PAGE 1

Base

Project: Sierrita Line: 3E1/2 Int.Cal _____ Date: 6/6/62

0-0.5E Send	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5	1-2	2-3	3-4
Rec.	0.5E	-1.0E	1.0E	-1.5E	→	1.5E	-2.0E	→		2.0E	-2.5E	
Time	9:17	9:20	9:37	9:40	9:45	10:05	10:07	10:11	10:14	10:25	10:30	10:35
DC-1	56.5 56.0	15.1 15.1	31.8 31.8	21.3 21.3	8.7 8.7	149.0 149.0	37.5 37.5	12.05 "	5.95 5.95	17.9 17.9	8.1 8.1	3.7 3.65
DC-2	55.5 55.5	15.1 15.1	31.8 31.8	21.3 21.3	8.7 8.7	149.0 149.0	37.5 37.5	" "	6.0 6.0	17.8 17.8	8.0 8.0	3.65 3.7
Σ	112.0 111.5	30.2 30.2	63.6	42.3	17.4 17.4	(47.5?)	11.8?	24.1	11.95	35.7	16.1 16.1	7.35 7.35
DC-3	56.0 56.0	↓	↓	↓	8.65 "	↓	↓	12.1 "	5.95 5.95	17.8 17.8	8.2 8.2	3.65 3.65
Dc-4	56.0 56.0	↓	↓	↓	" "	↓	↓	12.1 "	5.95 6.0	17.9 17.9	8.2 8.2	3.70 3.70
Σ	112.0 112.0	30.2 30.2	63.6	42.3	17.3 17.3	↓	75.0	24.2	11.90 11.95	35.7	16.4 16.4	7.35
DC-AV	112.1	30.2	63.6	42.3	17.35	298.0?	75.0?	24.15	11.94	35.7	16.25	7.35
AC-1	54.5	14.7	31.7	20.8	8.7 8.5	141.5	36.5	11.6	5.75	16.3	7.5 7.6	3.45
AC-2	"	"	"	"	8.4 8.6	143.0	"	11.7	"	16.4	7.5 7.6	"
Σ	109.0	29.4	63.4	41.6	17.1	44.5? 284.5	73.0 11.6?	23.3	11.5	32.7	15.1	6.90
S.+P 5.5	1E Base to	0.5E -6.1	—	12.4-13.7	15.0	+2.2	+1.7		+1.3	+7.0		
AC-N	0.05	↓				0.06			0.06			
		Field										

INDUCED POLARIZATION - RECEIVER NOTES PAGE 2

Project: Sierita Line: 3E 1/2 Int.Cal 50.3 Date: 6/6/82

							0.3	1.0	2.0			
Send	4-5	1-2	2-3	3-4	4-5		Cal	Watt	→			
Rec.	2.0E-2.5E	2.5E	-3.0E	→			0.5E	-1.0E	→			
Time	10:40	10:50	10:56	11:00	11:05		8:55	9:00	9:03			
DC-1	2.18 2.19	6.55 6.50	3.70 3.60	1.86 1.88	1.22 1.28		14.1 14.2	52.5 52.5	90.0 90.0			
DC-2	2.23 2.19	6.50 6.55	3.70 3.80	1.86 1.86	1.18 1.18		14.1 14.1	52.5 52.5	90.0 90.0	300 volts		
Σ	4.41 4.38	1305 1305	7.4 7.4	3.72 3.72	2.40		28.2 28.3	105 105	180			
DC-3	2.20 2.21	6.55 6.55	3.70 3.70	1.88 1.86	1.18 1.20		14.2 14.2		91.5			
Dc-4	2.20 2.18	6.50 6.50	3.70 3.70	1.90 1.91	1.23 1.22		14.0 14.0		91.5	100 volts		
Σ	4.40 4.39	1305	7.4	3.78 3.77	2.46 2.42		28.2 28.2					
DC-AV	4.39	13.05	7.4	3.75	2.41		28.2	105	180			
AC-1	2.06	6.10	3.55	1.80	1.16		14.8	54.5	94.0			
AC-2	"	6.15	3.50	1.82	"		14.6	55.0	95.0	94.0		
Σ	4.12	13.25	7.05	3.62	2.32		29.4	109.5	189			
S. P.	+7.0	-19.1	(-18.3)		-17.5							
AC-N	0.07	0.07			0.06							
							50%	55%				

INDUCED POLARIZATION SENDER NOTES

Project: Sierita Line: 3 E 1/2 Date: 6-5-62 AM

Send	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5	1-2	2-3	3-4
Receive	0.5E	1.0E	1.0E	1.5E →		1.5E	2.0E	→	→	2.0E	2.5E →	
Time	9:15 2.0	9:18	9:36	9:42	9:46	10:01	10:03	10:07	10:12	10:25	10:28	10:32
Range	180	180	180	180	180	180	180	180	180	180	190	190
Current AC	900.0	908.1	887.2	895.2	895.3	885.4	875.4	880.6	883.0	874.1	875.5	875.6
DC	900.0	908.1	887.2	893.1	895.1	887.8	875.4	880.6	8830	876.6	873.3	875.6
AC	902.1	908.1	888.5	891.5	893.1	889.3	875.4	879.0	880.2	879.3	875.3	875.6
Send	4-5	1-2	2-3	3-4	4-5		Calibrate →			1-2		
Receive	→	2.5E	3.0E	→	→		0.5E	1E →				
Time	2.0				→		8:54 6.3	8:57 1.0	9:03 2.0			
Range	10:36 180	10:50 180	10:53 190	10:57 180	11:02 180		60	120	180			
AC	874.0	866.6	868.3	864.1	868.2		143.0	521.8	906.9			
Current DC	874.0	870.6	866.2	864.1	866.6		140.0	521.8	908.8			
AC	874.0	873.4	866.2	862.8	866.6		140.0	524.3	911.4			

PM - 6/5/62 1-2 220 2-3 220, 3-4 200 4-5 240

AM 6/6/62

A 1

HEINRICHS GEOEXPLORATION COMPANY
INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Page _____

Project Sierrita Line 3- E/2 Field date 6/June/62 Data page _____ Comp. date 6/June. Comp by JHH.

(A) Send	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5	1-2	2-3	3-4
(B) Receive	.5-1.0E	→	1.0-1.5E	—	→	1.5-2.0E	—	→	→	2.0-2.5E	—	→
(C) n separation	1	2	1	2	3	1	2	3	4	2	3	4
(D) I	1802	1816	1776	1787	1788	1775	1751	1760	1763	1753	1749	1751
(E) Vdc (avg)	112.1	30.2	63.6	42.3	17.35	298.0	75.0	24.15	11.94	35.7	16.25	7.35
(F) DCcal	1.000	—	—	—	—	—	—	—	—	—	—	→
(G) Kn x 10^{-3}	1.5	6	1.5	6	15	1.5	6	15	30	6	15	30
(H) ρdc=ExFxGx10^3/D	93.4	99.6	53.8	142.0	145.8	252.0	257.0	205.5	195.8	122.0	139.1	126.0
(I) Vac Σ												
(J) AC noise x 2												
(K) Vac(corr) = $\sqrt{I^2 - J^2}$	109.0	29.4	63.4	41.6	17.1	284.5	730	23.3	11.5	32.7	15.1	6.90
(L) AC-DC cal.	1.047	—	—	—	—	—	—	—	—	—	—	→
(M) ρ dc/ρac=ExL/K	1.078	1.075	1.049	1.065	1.023	1.091	1.074	1.085	1.088	1.142	1.125	1.115
(N) PFE=(M-1)(10^2)	8	8	5	7	2	9	7	9	9	14	13	12
(O) MCF=(M-1)(10^5)/H	84	75	91	46	16	36	29	41	45	116	90	91

Project _____ Line _____ Field date _____ Data page _____ Comp. date _____ Comp by _____

(A) Send	4-5	1-2	2-3	3-4	4-5		1-2	—	—	—	—	→
(B) Receive	2.0-2.5E	2.5-3.0E	—	—	→		Cal					
(C) n separation	5	3	4	5	6							
(D) I	1748	1740	1735	1727	1735		283	1046	1818	278.8	515	1016.2
(E) Vdc (avg)	4.39	13.05	7.4	3.75	2.41		28.2	105	180	28.1	50.0 51.9	103.0
(F) DCcal	1.000	—	—	—	→		1.001	.997	1.009	.994	1.027	.986
(G) Kn x 10^{-3}	52.5	15	30	52.5	84							
(H) ρ dc=ExFxGx10^3/D	132.0	112.5	128.0	114.0	116.7							
(I) Vac Σ							29.4	109.5	189	29.5	53.0 52.9	107.5
(J) AC noise x 2												
(K) Vac (corr) = $\sqrt{I^2 - J^2}$	4.12	13.25	7.05	3.62	2.32							
(L) AC-DC cal.	1.047	—	—	—	→		1.039	1.041	1050	1.050	1.060 1.012	1.042
(M) ρdc/ρac =ExL/K	1.115	1.030	1.099	1.082	1.088							
(N) PFE=(M-1)(10^2)	12	3	10	8	9							
(O) MCF=(M-1)(10^5)/H	87	37	77	72	75							

AV AC/DC = 1.047

INDUCED POLARIZATION - RECEIVER NOTES

Project: Silverado Line: 3 W 1/2 Int.Cal 50.2 Date: 6/6/82

	0-0.5W	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2	4-5	3-4	2-3
Send		0.5W	1.0W	1.0W	1.5W	→	1.5W	2.0W		→	2.0W	2.5W	
Rec.													
Time											2:15	2:16	2:18
DC-1		63.5 63.0	14.7 14.7	65.0 65.0	18.8 18.6	5.7 5.7	62.5 63.0	20.7 20.5	8.55 "	3.10 3.10	14.2 14.2	6.65 6.70	3.05 3.05
DC-2		63.5 63.0	15.1 15.1	65.5 65.5	19.0 19.2	5.8 5.8	62.5 62.0	20.7 20.8	" "	3.10 3.10	14.2 14.2	6.65 6.65	3.15 3.15
Σ		63.5											
DC-3		↓	14.9	↓	18.9	5.75	63.0 "	20.6 "	8.35 8.40	↓	↓	6.65 "	3,10 "
Dc-4		↓	↓	↓	↓	↓	" "	" "	8.35 8.40	↓	↓	6.65 "	" "
Σ		63.5											
DC-AV		126.5	29.8	130.5	27.8	11.5	126,0	41.2	17.3	6.2	28.4	13.3	6.2
AC-1		63.5	15.0	65.5	18.9	5.8	62.5	20.5	8.35 8.50	3.15	14.2	6.65	3.15
AC-2		"	"	"	"	5.75	63.0	"	8.50 8.35	"	14.3	"	"
Σ		127.0	30.0	131.0	27.8	11.55	125.5	41.0	16.85	6.3	28.5	13.30	6.3
S - P	19.2	(+17.4)		+9.8	+9.6	+9.3	+1.5				+3.6		
AC-N		14.2			0.07								
		(-11.1 Recip.											

INDUCED POLARIZATION - RECEIVER NOTES PAGE 4

Project: Sierrita Line: 3 W1/2 Int.Cal 50.0 Date: 6/6/62

							0.3	1.0	2.0	0.3	0.5	1.0
Send	1-2	4-5	3-4	2-3	1-2		Calibrate			1-2	→	
Rec.	2.0W-2.5W	2.5-3.0	W				0.5-	1.0 W		1.0 E	→	
Time	2:25	2:45	2:48	2:50	2:55					3:20	3:25	
DC-1	1.29 1.30	4.55 4.55	2.47 2.46	1.26 1.27	0.56 0.55		14.1 14.1	51.8 51.9		14.1	25.9	51.5 "
DC-2	1.28 1.28	4.55 4.55	2.48 2.48	1.29 1.30	0.54 0.57		14.0 14.0	51.8 51.8		"	26.0	" "
Σ										28.2		
DC-3	1.31 1.30	↓	2.47 "	1.29 1.29	0.56 0.54		↓	↓		14.0	25.0	↓
Dc-4	1.28 1.27		" "	1.30 1.28	0.56 0.55					"	25.0	
Σ										28.0		
DC-AV	2.59	9.10	4.94	2.56	1.11		28.1	103.6		28.1	50.0 51.9	103.0
AC-1	1.32	4.55	2.42	1.30	0.58		14.7	54.0		14.95	26.25 27.00	53.5
AC-2	1.31	"	"	1.29	0.57		14.6	54.5		14.65	26.25 26.00	54.0
Σ	2.63	9.10	4.84	2.59	1.15		29.3	108.5		29.50	53.5 53.0	107.5
S. P.	+3.3	+9.7	+9.5		+9.4							
AC-N	0.07				0.06							
							50%	54%		50		

INDUCED POLARIZATION SENDER NOTES

Project: Sumita Line: 3 W 5 Date: 6-6-62

Send	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2	4-5	3-4	2-3
Receive	.5 – 1.0 W	1.0 —		1.5 W	1.5 —		2.0 W		2.0	2.0 —		
Time	12:49 2.0	12:53	13:11	13:14	13:16	13:45	13:47	13:51	13:5	14:08	14:12	14:15
Range	180	180	180	190	180	180	180	180	180	180	180	180
Current AC-1	893.0	900.0	886.3	891.3	891.9	889.7	881.1	873.4	878.6	875.9	874.4	865.8
DC	896.2	900.0	891.3	891.3	891.9	891.7	881.1	869.6	875.9	879.3	872.4	863.1
AC-2	897.8	896.8	891.3	887.5	889.1	891.7	879.4	869.6	875.9	879.9	872.4	863.1
Send	1-2	4-5	3-4	2-3	1-2		Cal 45			Cal	1-2	
Receive	2.5W	2.5 —		3.0 W								
Time	14:19 2.0	14:43	14:46	14:50	14:53		13:25 .30	13:30 1.0	2.0	15:19 .30	15:23 .50	15:25 1.0
Range	180	180	180	180			60	120		60	80	120
AC-1	872.9	874.8	874.6	862.2	870.9		140.0	510.1		139.4	259.1	505.9
DC	872.9	877.6	873.3	862.2	867.7		140.0	512.8		139.4	256.7	508.1
AC-2	870.6	879.9	873.3	861.0	867.7		140.0	514.7		139.4	255.4	510.3

Bill & Walt

INDUCED POLARIZATION SENDER NOTES

Project: INSP. Line: 1 - Spr. 1 (0.75 cap) Date: 5/28/62

Send	2-3 →			1214 1413								
Receive	Cal							Stake	1-2	2-3	3-4	4-5
Time	4:21	4:15	4:17	4:39					200±	200±	200	200±
Range	1.50 240+	0.3 60±?	0.75 140	1.50 220								
Current	654.0 x2	x2 140	x2 335.3	x2 709.3 DC 706.5 AC								
Send	2-3 →			3-4	4-5							
Receive												
Time	4:22	4:15	4:20	4:30	4:33							
Range	1.50 240+	0.3 60±?	0.75 140	1.50 205	1.50 200							
Current	651.0 x2	139.5 x2	333.0 x2	677 x2 675.5 6740	698.3 AC 698.6 DC 698.0 DC 704.0 AC							

HEINRICHS GEOEXPLORATION COMPANY

INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Project Sierrita Line 3 W 1/2 Field date 6/6/62 Data page 2 Comp. date 6/6/62. Comp by FAS CWEH

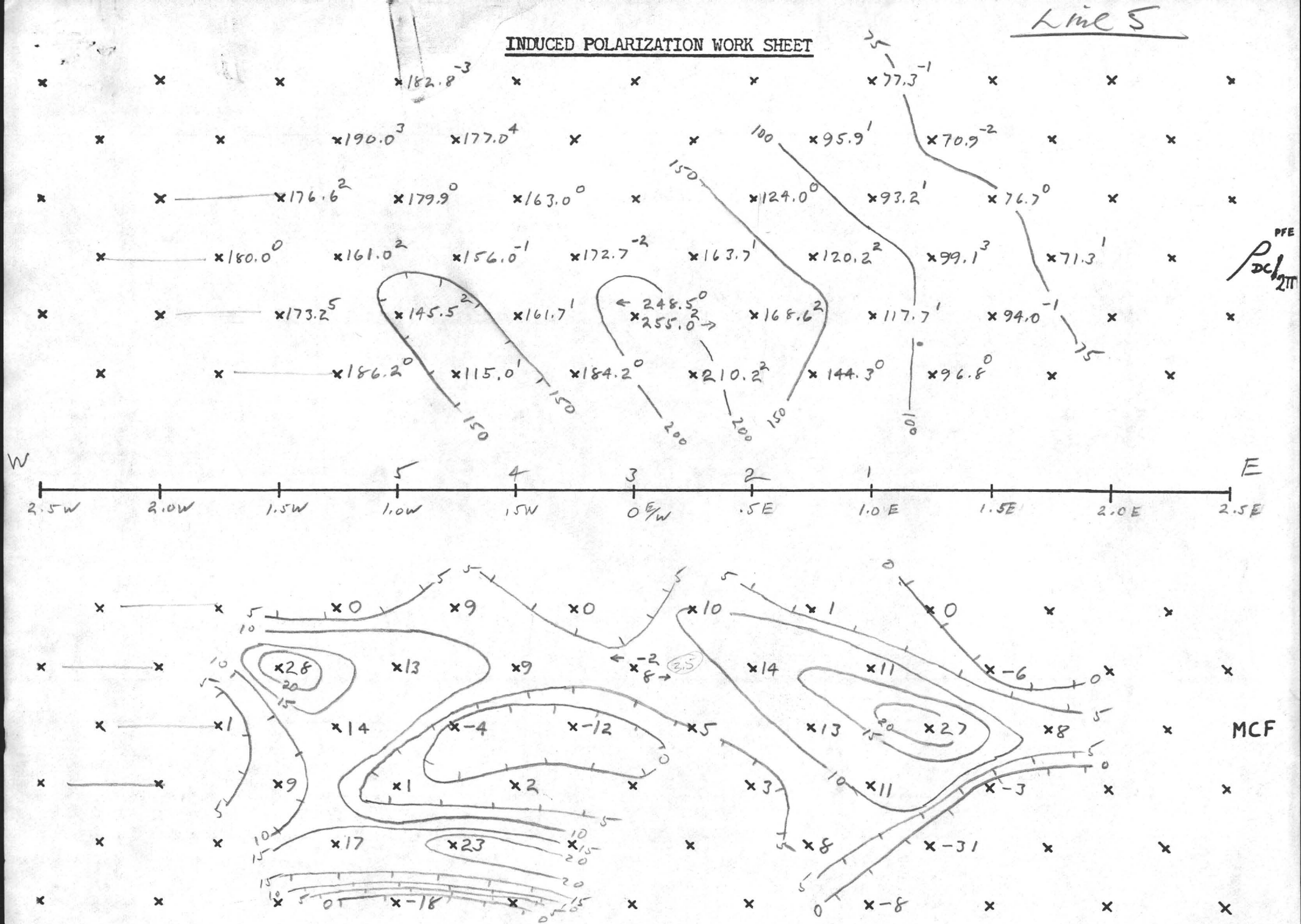
(A) Send	2-3	1-2	3-4	2-3	1-2	4-5	3-9	2-3	1-2	4-5	3-4	2-3
(B) Receive	0.5W	1.0W	1.0W	1.5W	→	1.5W	2.0W	→	→	2.0W	2.5W	→
(C) n separation	1	2	1	2	3	1	2	3	4	2	3	4
(D) I	1790.8	1796.8	1777.6	1778.8	1781.0	1781.4	1760.5	1743.0	1754.5	1755.8	1746.8	1728.9
(E) Vdc (avg)	126.5	29.8	130.5	27.8	11.5	126.0	41.2	17.3	6.2	28.4	13.3	6.2
(F) DCcal	1.00	→	→	→	→	→	→	→	→	→	→	→
(G) Kn x 10^{-3}	1.5	6.0	1.5	6.0	15	1.5	6.0	15	30	6.0	15	30
(H) ρ dc=ExFxGx10^3/D	106.0	100.0	111.0	94.0	97.0	106.0	140.0	149.0	106	97.0	114.0	108
(I) Vac Σ	127.0	30.0	131.0	27.8	11.55	125.5	41.0	16.85	6.3	28.5	13.3	6.3
(J) AC noise x 2												
(K) Vac(corr) = $\sqrt{I^2 - J^2}$												
(L) AC-DC cal.	1.047	→	→	→	→	→	→	→	→	→	→	→
(M) ρ dc/ρac=ExL/K	1.042	1.040	1.043	1.047	1.043	1.051	1.051	1.074	1.030	1.042	1.047	1.030
(N) PFE=(M-1)(10^2)	4	4	4	5	4	5	5	7	3	4	5	3
(O) MCF=(M-1)(10^5)/H	40	40	39	50	44	48	36	45	38	43	41	28

Project _____ Line _____ Field date _____ Data page _____ Comp. date _____ Comp by _____

(A) Send	1-2	4-5	3-4	2-3	1-2							
(B) Receive	2.0W-2.5W	2.5W	3.0W	→	→							
(C) n separation	5	3	4	5	6							
(D) I	1753.5	1754.7	1747.9	1723.2	1738.6		280.0	1024.8	~~378.8~~	~~878.8~~	~~514.5~~	~~1016.2~~
(E) Vdc (avg)	2.59	9.10	4.94	2.56	1.11		28.1	103.6				
(F) DCcal	1.00	→	→	→	→	→	→	→	→	→	→	→
(G) Kn x 10^{-3}	52.5	15	30	52.5	84							
(H) ρ dc=ExFxGx10^3/D	74.5	78.0	85.0	78.0	54							
(I) Vac Σ	2.63	9.10	4.84	2.59	1.15		29.3	108.5				
(J) AC noise x 2												
(K) Vac (corr) = $\sqrt{I^2 - J^2}$												
(L) AC-DC cal.	1.047	→	→	→	→	→	→	→	→	→	→	→
(M) ρdc/ρac =ExL/K	1.030	1.047	1.069	1.035	1.010							
(N) PFE=(M-1)(10^2)	3	5	7	4	1							
(O) MCF=(M-1)(10^5)/H	40	60	81	45	19							

INDUCED POLARIZATION WORK SHEET

Line 5



Area W. Sierrita - Line 5 - Sect. 1 - E & W Scale 1" = 500' Date 6/26/62

INDUCED POLARIZATION SENDER NOTES

Project: W. Sierrita **Line:** ~~#5~~ Spn 1 - E ½ **Date:** 6-26-62

Send	First set → 3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5	1-2	2-3	3-4
Receive	E .5-1.0	→	E 1.0-1.5	→	→	1.5-2.0	→	→	→	E 2.0-2.5	→	→
Time	11:08	11:10	11:52	11:54	11:56	12:11	12:13	12:15	12:18	12:41	12:43	12:45
Range	604.8 600.8 609.8	681.7 681.7 681.7	719.6 713.4 717.4	643.7 639.7 642.9	697.8 694.4 698.0	735.4 724.7 734.7	734.9 730.0 734.2	649.4 645.5 647.8	699.2 693.2 699.4	727.3 713.6 727.2	731.3 721.9 729.9	647.3 637.5 640.8
Current	See back	See back	1432.3	1286.6	1392.4	1459.4	1464.2	1293.3	1392.6	1440.8	1451.8	1278.3
Send	4-5	1-2	2-3	3-4	4-5		Cal,	1-2				
Receive	E 2.0-2.5	E 2.5-3.0	→	→	→							
Time	12:48	12:58	13:00	13:02	13:04		10:55	10:57	10:59			
Range	682.0 682.0 682.0	702.8 682.1 687.2	699.9 692.5 692.5	615.2 615.2 614.7	653.8 649.5 655.2							
Current	1364.0	1369.3	1385.0	1229.9	1304.7		143.6 141.2 141.2	325.8 325.8 322.1	610.8 605.9 605.9			

RANGE 2.0

.30 .75 2.0 .30 .75 2.0

284.8 647.9 1216.7

INDUCED POLARIZATION - RECEIVER NOTES PAGE 1

Project: W. Silverita Line: 5 - Sec. 1 - E' Int.Cal 51.0 Date: 6/25/72

Send	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5	1-2	2-3	3-4
Rec.	.5-1.0E	→	1.0-1.5	E →	→	1.5-2.0	E →	→	→	2.0-2.5	E →	→
Time	11:45	1148	1152	1154	1156		12:18	1215		1241	1243	1245
DC-1	91.0 91.0	29.0 29.5	69.0 69.0	18.1 18.2	7.6 7.6	47.2 46.8	14.3 14.3	5.20 5.20	2.90 2.85	11.3 11.3	4.8 4.78	2.01 1.95
DC-2	89.0 89.0	29.5 29.0	69.0 69.0	18.0 18.0	7.6 7.6	46.8 47.2	14.3 14.3	5.20 5.18	2.85 2.90	11.3 11.3	4.8 4.80	1.95 2.02
Σ	180.0 180.8	58.5 58.5	138.0 138.0	36.1 36.2	15.2	94.0	28.6	10.40 10.38	5.75 5.75	22.6	9.60 9.58	3.96 3.97
DC-3	91.0 91.0	29.5 29.5	68.0 70.0	18.0 18.2	7.6 7.6	47.2 47.0	14.2 14.3	5.20 5.20	2.95 2.85	11.4 11.3	4.8 4.8	1.98 2.02
Dc-4	89.0 89.0	29.0 29.0	70.0 68	18.1 18.0	7.6 7.6	46.9 47.0	14.3 14.2	5.20 5.18	2.82 2.92	11.2 11.3	4.8 4.8	1.99 1.94
Σ	180.0 180.0	58.5	138.0 138.0	36.1 36.2	15.2	94.1 94.0	28.5 28.5	10.40 10.38	5.77	22.6 22.6	9.60	3.97 3.96
DC-AV	180.0	58.5	138.0	36.15	15.2	94.0	28.5	10.39	5.76	22.6	9.60	3.965
AC-1	93.0	30.2	73.0	18.7	8.0	49.8	14.95	5.140	3.05	12.0	5.05	2.08
AC-2	94.0	30.5	73.0	18.7	8.0	49.8	14.9	5.142	3.03	12.1	5.05	2.08
Σ	187.0	60.7	146.0	37.4	16.0	99.6	29.8	10.82	6.08	24.1	10.10	4.16
S. P.		-12.4	+26.1	→	+27.0	-21.5	→	→	-21.9	+10.2	→	→
AC-N		0.06			0.06				0.07			

INDUCED POLARIZATION - RECEIVER NOTES PAGE 2

Project: W. Sierrita Line: 5-Sur 1 E½ Int.Cal 50.2 mm Date: 6/22/62

Send	4-5	1-2	2-3	3-4	4-5		Cal	1-2				
Rec.	2.5-2.5	2.5-3.0	E →									
Time	1248	1256	1300				10:55	10:57	10:59			
DC-1	1.25 1.23	3.25 3.20	1.79 1.78	.80 .86	0.56 0.64		14.5 14.5	32.7 32.7	60.0 60.0			
DC-2	1.25 1.23	3.25 3.30	1.78 1.78	.86 .80	0.63 0.56		14.6 14.6	32.7 32.7	60.0 60.0			
Σ	2.50 2.46	6.50 6.50	3.57 3.56	1.66 1.66	1.19 1.20		29.1 29.1	65.4 65.4	120.0 120.0			
DC-3	1.28 1.21	3.30 3.20	1.80 1.73	.80 .87	.56 .63							
Dc-4	1.21 1.26	3.20 3.30	1.72 1.80	.86 .79	.63 .58							
Σ	2.49 2.49	6.50 6.50	3.52 3.53	1.66 1.66	1.19 1.21							
DC-AV	2.49	6.50	3.54	1.66	1.20		29.1	65.4	120.0			
AC-1	1.31	3.45	1.89	0.90	0.64		15.3	34.8	64.0			
AC-2	1.31	3.40	1.87	0.90	0.64		15.1	34.2	63.0			
Σ	2.62	6.85	3.76	1.80	1.28		30.4	69.0	127.0			
S. P.	+9.1	+36.0	→									
AC-N	0.05				0.05							

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INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Page_____

Project W. Sierrita Line 5 - Sp2 - E½ Field date 6/25/62 Data page_____ Comp. date 6/26/62 Comp by C.S.L.

R = 10,000Ω

(A) Send	CAL	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5	1-2	2-3
(B) Receive	1-2	.5-1.0E	→	1.0-1.5E	→	→	1.5-2.0E	→	→	→	2.0-2.5E	→
(C) n separation		1	2	1	2	3	1	2	3	4	2	3
(D) I		1283	1374	1432	1287	1392	1459	1464	1293	1393	1441	1452
(E) Vdc (avg)		180.0	58.5	138.0	36.15	15.2	94.0	28.5	10.39	5.76	22.6	9.60
(F) DCcal USED	1.000											
(G) Kn x 10^{-3} a_3 = 500'		1.5	6	1.5	6	15	1.5	6	15	30	6	15
(H) ρdc=ExFxGx10^3/D		210.2	255.0	144.3	168.6	163.7	96.8	117.7	120.2	124.0	94.0	99.1
(I) Vac Σ		187.0	60.7	146.0	37.4	16.0	99.6	29.8	10.52	6.05	24.1	10.10
(J) AC noise x 2		.12	.12	.12	.12	.12	.14	.14	.14	.14	.10	.10
(K) Vac(corr) = $\sqrt{I^2 - J^2}$												
(L) AC-DC cal. USED	1.060											
(M) ρdc/ρac=ExL/K		1.020	1.020	1.002	1.023	1.008	1.000	1.013	1.016	1.004	.994	1.027
(N) PFE=(M-1)(10^2)		2	2	0	2	1	0	1	2	0	-1	3
(O) MCF=(M-1)(10^5)/H		10	8	1	14	5	0	11	13	3	-6	27

R = 20000Ω

Project_____ Line_____ Field date_____ Data page_____ Comp. date_____ Comp by_____

(A) Send	3-4	4-5	1-2	2-3	3-4	4-5	CAL	→	→		3-4	4-5
(B) Receive	→	→	2.5-3.0E	→	→	→	1-2	→	→		.5-1.0E	→
(C) n separation	4	5	3	4	5	6					1	2
(D) I	1278	1364	1369	1385	1230	1305	285	648	1217		1205	1363
(E) Vdc (avg)	3.965	2.49	6.50	3.54	1.66	1.20	29.1	65.4	120.0		171.0	58.1
(F) DCcal							.980	.991	1.013		1.000	→
(G) Kn x 10^{-3}	30	52.5	15	30	52.5	84					1.5	6.0
(H) ρdc=ExFxGx10^3/D	93.2	95.9	71.3	76.7	70.9	77.3					212.8	256.0
(I) Vac Σ	4.16	2.62	6.55	3.76	1.80	1.28	30.4	69.0	127.0		175.0	60.7
(J) AC noise x 2	.10	.10	.10	.10	.10	.10					.12	.12
(K) Vac (corr) = $\sqrt{I^2 - J^2}$											→	→
(L) AC-DC cal.	→	→	→	→	→	→	1.044	1.056	1.059		1.060	→
(M) ρdc/ρac =ExL/K	1.010	1.008	1.006	.998	.978	.994					1.019	1.013
(N) PFE=(M-1)(10^2)	1	1	1	0	-2	-1					2	1
(O) MCF=(M-1)(10^5)/H	11	8	8	-3	-31	-8					9	5

INDUCED POLARIZATION - RECEIVER NOTES PAGE

Project: Sierrita Line: #5 Spd 1 w/½ Int.Cal 49.9 Date: 25 Jun 82

Send	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2	4-5	3-4	2-3
Rec.	0.5-1.0	→	1.0-1.5	←	→	1.5-7.0	←		→	7.0-7.5	←	→
Time	14:46	14:49	1504	1505	1507	1515	1517	1519	1521	1533	1535	1538
DC-1	88.0 90.0	30.2 30.2	49.5 49.5	16.9 16.8	7.1 7.2	73.0 74.0	15.5 15.6	7.5 7.4	3.90 3.90	20.0 19.9	7.0 6.8	4.20 4.20
DC-2	90.0 88.0	30.2 30.2	49.5 49.5	16.8 16.9	7.2 7.1	74.0 73.0	15.6 15.5	7.4 7.5	3.88 3.88	19.6 19.9	6.8 7.0	4.20 4.18
Σ	178.0 178.0	60.4 60.4	99.0 99.0	33.7 33.7	14.3 14.3	147.0 147.0	31.1 31.1	14.9 14.9	7.78 7.78	39.6 39.8	13.8 13.8	8.40 8.38
DC-3	88.0 90.0	30.2 30.2	49.5 49.8	16.9 16.8	7.1 7.2	73.0 74.0	15.6 15.5	7.4 7.4	3.85 3.82	20.0 19.7	6.9 6.8	4.20 4.20
Dc-4	90.0 88.0	30.2 30.2	49.5 49.3	16.8 16.9	7.2 7.1	74.0 73.0	15.5 15.6	7.4 7.5	3.92 393	19.7 19.9	6.9 6.9	4.20 4.20
Σ	178.0 178.0	60.4 60.4	99.0 99.1	33.7 33.7	14.3	147.0 147.0	31.1 31.1	14.9 14.9	7.77 7.75	39.7 39.6	13.8 13.7	8.40 8.40
DC-AV	178.0	60.4	99.0	33.7	14.3	147.0	31.1	14.9	7.77	39.7	13.8	8.40
AC-1	95.0	32.2	51.9	17.6	7.8	78.8	16.2	8.0	4.10	20.1	7.2	4.43
AC-2	94.0	32.2	52.0	17.6	7.7	78.0	16.2	7.9	4.10	20.1	7.1	4.45
Σ	189.0	64.4	103.9	35.2	15.5	156.0	32.4	15.9	8.20	40.2	14.3	8.88
S. P.	-9.6	→	+5.6	→	→	-8.1	→	→	→	+6.5	→	→
AC-N	←	0.13			0.06				0.08			

INDUCED POLARIZATION - RECEIVER NOTES

PAGE _____

Project: Sierrita Line: #5-Spd#1 W1/2 Int.Cal _____ Date: 26/Jun 10

Send	1-2	4-5	3-4	2-3	1-2		Cal	4-5				
Rec.	20-25W	25-3W	→	→	→							
Time		1550	1553	1556	1600		14:35	14:37	14:40		16:32	
DC-1	2.35 2.41	7.7 7.5	3.50 3.50	2.35 2.17	1.35 1.28		14.1 14.1	32.0 32.0	68.0 68.0	14.0 14.0	31.7 31.7	70.0 70.0
DC-2	2.41 2.32	7.4 7.6	3.40 3.40	2.17 2.38	1.33 1.36		14.1 14.1	32.0 32.0	68.0 68.0	14.0 14.0	31.7 31.7	70.0 70.0
Σ	4.76 4.73	15.1 15.1	6.90 6.90	4.52 4.55	2.68 2.64		28.2 28.2	64.0 64.0	136.0 136.0	28.0 28.0	63.4 63.4	140.0 140.0
DC-3	2.32 2.40	7.6 7.4	3.40 3.50	2.34 2.15	1.34 1.30							
Dc-4	2.42 2.29	7.4 7.6	3.50 3.40	2.15 2.38	1.27 1.31							
Σ	4.74 4.69	15.0 15.0	6.90 6.90	4.49 4.53	2.61 2.61							
DC-AV	4.73	15.05	6.90	4.52	2.63		28.2	64.0	136.0	28.0	63.4	140.0
AC-1	2.42	8.0	3.61	2.34	1.48		15.0	34.2	70.0	14.7	34.0	74.0
AC-2	2.41	7.9	3.59	2.30	1.40		14.9	33.9	72.0	14.8	33.6	75.0
Σ	4.83	15.9	7.20	4.64	2.88		29.9	68.1	142.0	29.5	67.6	149.0
S. P.	+6.2	-48										
AC-N	0.09				0.08							

INDUCED POLARIZATION SENDER NOTES

Project: W. Sierrita Line: #5 spr. 1 W ½ Date: 6-25-62

Send	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2	4-5	3-4	2-3
Receive	W .5-1.0	→	W 1.0-1.5	→	→	W 1.5-2.0	→	→	→	W 2.0-2.5	→	→
Time	14:46	14:49	15:04	15:05	15:07	15:15	15:17	15:19	15:21	15:33	15:35	
Range	739.8 727.5 735.4	739.4 730.0 739.8	651.7 650.7 632.8	638.1 626.4 634.4	634.4 625.4 628.6	599.9 595.7 599.9	654.5 646.4 649.2	731.3 719.8 726.2	726.2 718.8 726.0	701.0 693.4 694.8	649.9 649.9 649.9	709.0 701.0 713.1
Current	1462.9	1469.8	1303.5	1260.8	1254.0	1195.6	1295.6	1446.0	1444.8	1388.2	1299.8	1414.1

Send	1-2	4-5	3-4	2-3	1-2		Cal	4-5				
Receive	W 2.0-2.5	W 2.5-3.0	→	→	→							
Time	15:40	15:50	15:53	15:56	16:00		14:35	14:37	14:40	16:27	16:32	16:34
Range	713.1 704.5 704.5	644.4 623.8 623.8	593.5 589.9 589.9	632.8 629.3 628.1	620.2 620.2 600.5		141.2 141.2 141.2	328.4 328.4 328.2	677.3 699.5 699.5	142.6 141.9 140.8	325.0 324.1 320.5	717.1 717.1 717.1
Current	1417.6	1264.2	1183.4	1262.1	1220.7		2824	656.6	1376.8	283.4	645.5	1434.2

R 2.0 .30 .75 2.0 .30 .75 2.0

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INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Page_____

Project W. Sierrita Line 5-Spl W½ Field date 6/25/62 Data page_____ Comp. date 6/26/62 Comp by C.S.L.

(A) Send	CAL	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2	4-5	3-4
(B) Receive	4-5	.5-1.0W	→	1.0-1.5W	→	→	1.5-2.0W	→	→	→	2.0-2.5W	→
(C) n separation		1	2	1	2	3	1	2	3	4	2	3
(D) I		1463	1470	1304	1261	1254	1196	1296	1446	1445	1385	1300
(E) Vdc (avg)		178.0	60.4	99.0	33.7	14.3	147.0	31.1	14.9	7.77	39.2	13.8
(F) DCcal USED	1.010											
(G) Kn x 10^{-3} $a=500'$		1.5	6	1.5	6	15	1.5	6	15	30	6	15
(H) ρ dc=ExFxGx10^3/D		184.2	248.5	115.0	161.7	172.7	186.2	145.5	156.0	163.0	173.2	161.0
(I) Vac Σ		189.0	64.4	103.9	35.2	15.5	156.0	32.4	15.9	8.20	40.2	14.3
(J) AC noise x 2		.26	.26	.12	.12	.12	.16	.16	.16	.16	.14	.18
(K) Vac(corr) = $\sqrt{I^2 - J^2}$												
(L) AC-DC cal. USED	1.060											
(M) ρ dc/ρac=ExL/K		.999	.995	1.010	1.014	.979	.999	1.019	.994	1.004	1.048	1.023
(N) PFE=(M-1)(10^2)		0	0	1	1	-2	0	2	-1	0	5	2
(O) MCF=(M-1)(10^5)/H		0	-2	9	9	-12	0	13	-4	2	28	14

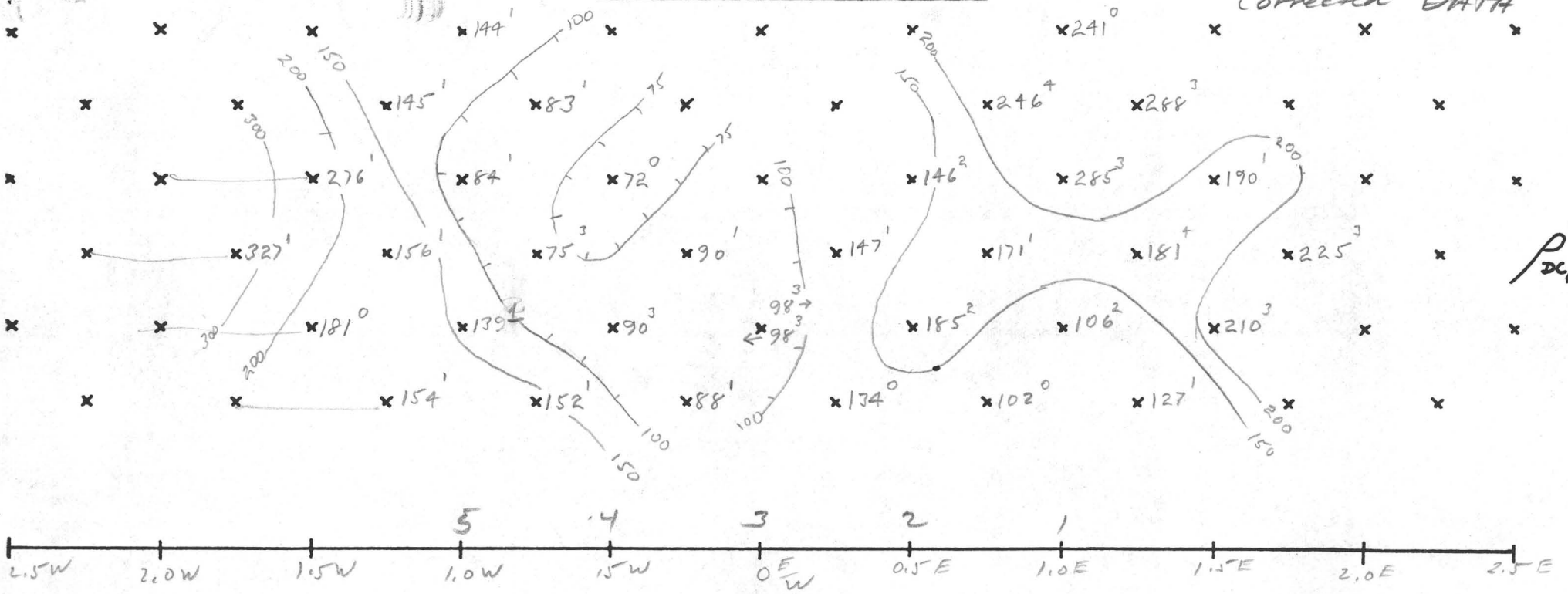
Project_____ Line_____ Field date_____ Data page_____ Comp. date_____ Comp by_____

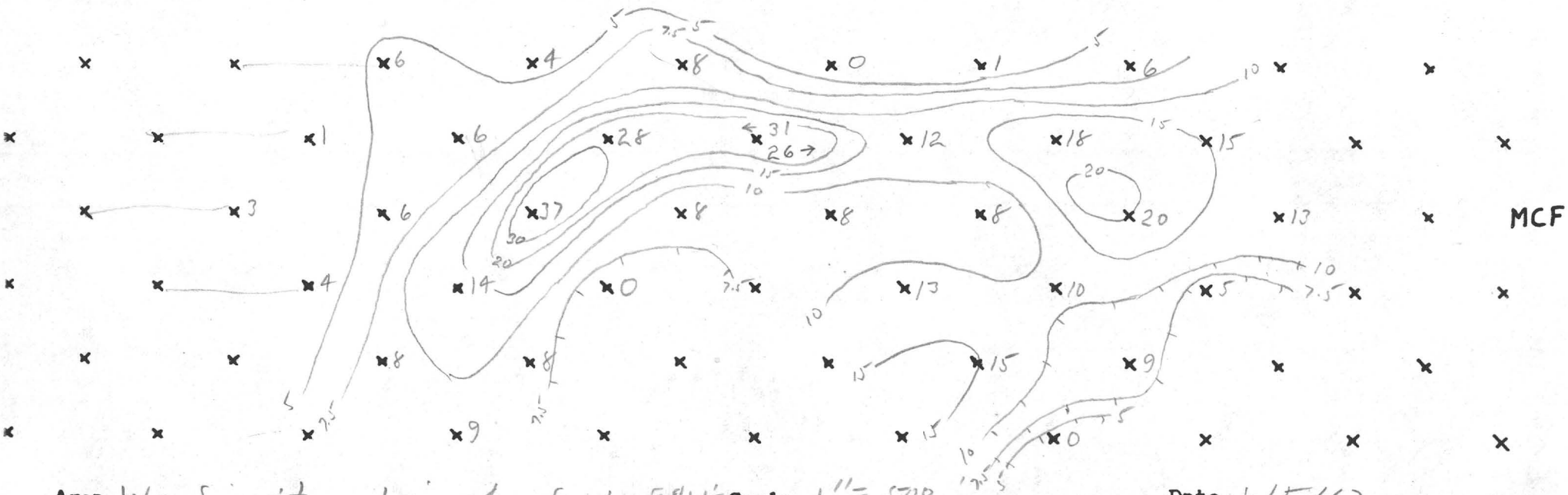
(A) Send	2-3	1-2	4-5	3-4	2-3	1-2	CAL	→	→	→	→	→
(B) Receive	→	→	2.5-3.0W	→	→	→	4-5	→	→	→	→	→
(C) n separation	4	5	3	4	5	6						
(D) I	1414	1418	1268	1183	1262	1221	282	657	1377	283	646	1434
(E) Vdc (avg)	5.40	4.23	15.05	6.90	4.52	2.63	28.2	64.0	136.0	28.0	63.4	140.0
(F) DCcal							1.000	1.028	1.011	1.010	1.020	1.024
(G) Kn x 10^{-3}	30	52.5	15	30	52.5	84		use	1.010			
(H) ρ dc=ExFxGx10^3/D	179.9	177.0	180.0	176.6	190.0	182.8						
(I) Vac Σ	5.68	4.83	15.9	7.20	4.64	2.88	29.9	68.1	142.0	29.5	67.6	149.0
(J) AC noise x 2	.18	.18	.16	.16	.16	.16						
(K) Vac (corr) = $\sqrt{I^2 - J^2}$												
(L) AC-DC cal.							1.060	1.065	1.045	1.053	1.068	1.064
(M) ρdc/ρac =ExL/K	1.002	1.040	1.002	1.016	1.032	.968	Avg = 1.0596		use 1.060			
(N) PFE=(M-1)(10^2)	0	4	0	2	3	-3						
(O) MCF=(M-1)(10^5)/H	1	23	1	9	17	-18						

Line 4 - Repeat - Looking North

INDUCED POLARIZATION WORK SHEET

Corrected DATA



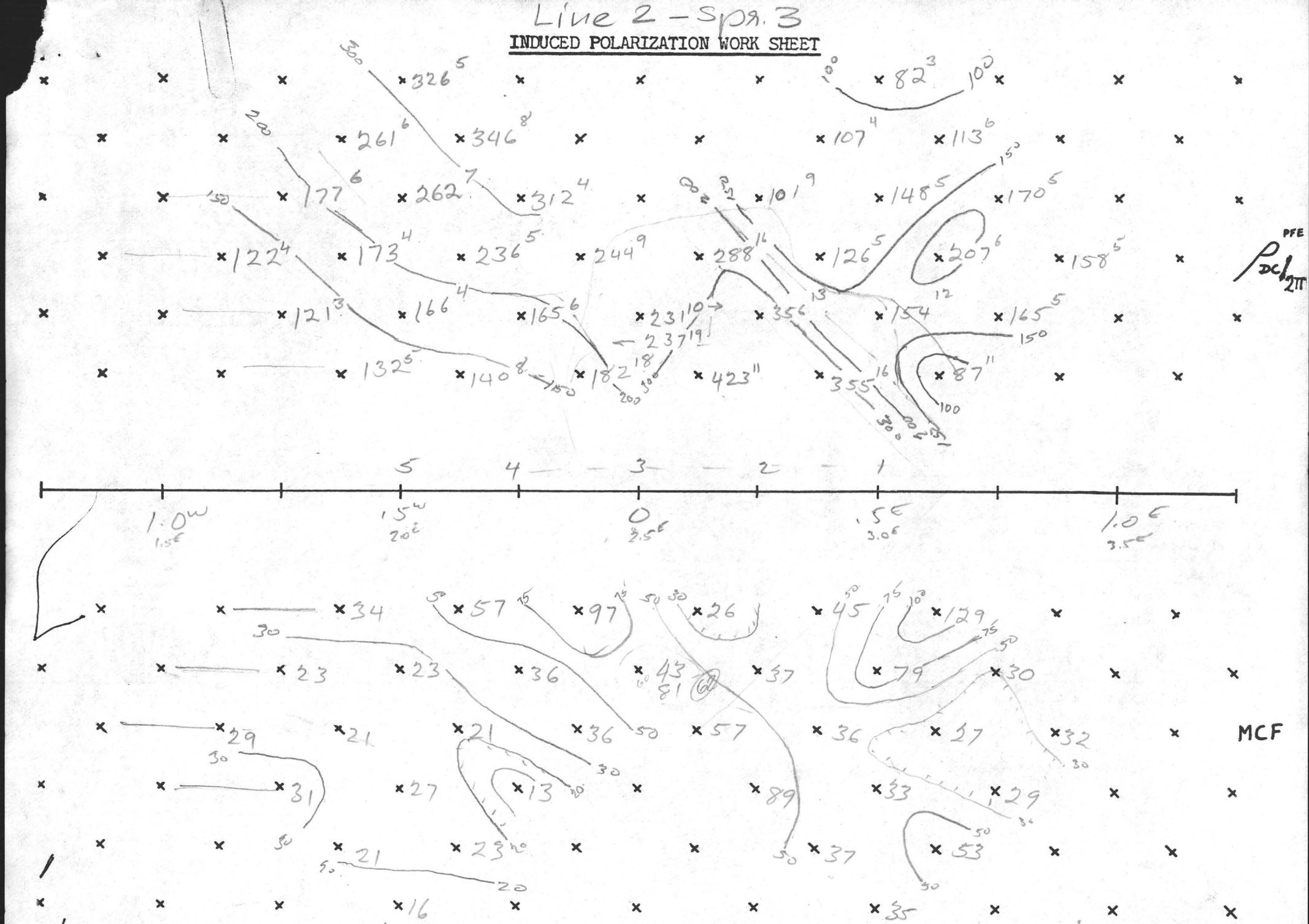


Area W- Sierrita - Line 4 - Sp. 1 - EQW Scale 1" = 500 Date 8/15/62

Repeat

Line 2 - Spr. 3

INDUCED POLARIZATION WORK SHEET



Area Sierrita - Line #2 Spr #3 Scale 1" = 250' Date 13 June

INDUCED POLARIZATION - RECEIVER NOTES

PAGE

Project: SIERRITA Line: #2 Sprd #3 - E 1/2 Int.Cal 50.0 Date: 11 June

Send	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5	1-2	2-3	3-4
Rec.	.25-.5	→	.5-.75	→	→	.75-1.0	→	→	→			
Time	12:15	12:17	12:30	12:31	12:34	12:47	12:50	12:52	12.54	13:05	13.08	13.11
DC-1	355	53.5	236	68.7	27.5	78.2	26.1	9.8	4.70	36.0	13.7	5.71
	355	53.7	236	68.7	27.9	78.1	26.1	9.9	4.65	36.0	13.7	5.72
DC-2	350	55.2	237	70.0	26.8	79.2	25.5	9.8	4.75	35.8	13.9	5.60
	350	55.5	238	70.0	27.0	79.0	25.6	9.8	4.80	35.8	14.0	5.60
Σ	705	108.7	473	138.7	54.3	157.4	51.6	19.6	9.45	71.8	27.6	11.31
	705	109.2	474	138.7	54.9	157.1	51.7	19.7	9.45	71.8	27.7	11.32
DC-3	355	53.8	236	69.0	27.8	78.2	26.0	9.9	4.60	35.8	13.6	5.72
	355	53.9	236	69.0	27.8	78.2	26.0	9.9	4.57	35.8	13.6	5.70
Dc-4	350	55.7	238	70.0	27.0	79.0	25.6	9.8	4.85	35.7	13.9	5.60
	350	55.6	238	69.8	27.0	79.0	25.6	9.8	4.82	35.7	13.9	5.62
Σ	705	109.5	474	139.0	54.8	157.2	51.6	19.7	9.45	71.5	27.5	11.32
	705	109.5	474	138.8	54.8	157.2	51.6	19.7	9.39	71.5	27.5	11.32
DC-AV	705	109.2	474	138.8	54.7	157.2	51.6	19.7	9.43	71.65	27.6	11.32
AC-1	332	51.7	212	63.7	24.4	73.5	23.9	9.3	4.50	35.7	13.6	5.65
AC-2	330	51.7	213	63.5	24.5	73.5	23.9	9.3	4.50	35.3	13.6	5.60
Σ	662	103.4	425	127.2	48.9	147.0	47.8	19.6	9.00	71.0	27.2	11.25
S. P.	+5.0		+10.2			+6.5				0.0		
AC-N		.04			.02				.04			

INDUCED POLARIZATION - RECEIVER NOTES PAGE

Project: Sierrita Line: 2 E/2 spratt 3 Int.Cal Date: 11/June

Send	4-5	1-2	2-3	3-4	4-5	S.P	Cal	1-2				
Rec.						0-.25	Cal					
Time	13.14	13.22	13.25	13:27	13:29			12:00	12:04	12:13		
DC-1	2.85 2.82	14.1 14.1	5.60 5.55	2.45 2.44	1.31 1.33	pot		14.0	32.8	65.7		
DC-2	2.90 2.88	13.8 13.8	5.80 5.80	2.50 2.51	1.33 1.31	Base		14.2	32.8	65.0		
Σ	5.75 5.70	27.9 27.9	11.40 11.30	4.95 4.95	2.64 2.64			28.2	65.6	130.7		
DC-3	2.80 2.80	14.1 14.2	5.52 5.52	2.42 2.43	1.36 1.36			14.0	32.8	65.5		
Dc-4	2.90 2.90	13.7 13.7	5.80 5.80	2.52 2.52	1.30 1.30			14.2	32.8	65.0		
Σ	5.70 5.70	27.8 27.9	11.32 11.32	4.94 4.95	2.66 2.66			28.2	65.6	130.5		
DC-AV	5.70	27.9	11.33	4.95	2.65			28.2	65.6	130.6		
AC-1	2.85	13.8	5.60	2.42	1.34			14.8	34.5	67.2		
AC-2	2.85	13.8	5.62	2.43	1.34			14.7	34.0	67.0		
Σ	5.70	27.6	11.22	4.85	2.68			29.5	68.5	134.2	✓	
S. P.		-0.6				+4.0						
AC-N	.04				.06							

INDUCED POLARIZATION Spread #3 SENDER NOTES

Project: Sierrita Line: #2 - E 1/2 Date: 11 June 62

Send	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5	1-2	2-3	3-4
Receive	.25-.5 E	→	.5-.75 E	→	→	.75-1.0 E	→	→	→	1.0-1.25 E	→	→
Time	12:15	12:17	12:30	12:31	12:34	12:47	12:50	12:52	12:54	13:05	13:08	13:11
Range	1.50	→	→	→	→	→	→	→	→	→	→	→
Current	1175 1175 1175	1425 1425 1425	1000 1000 1000	1175 1160 1175	1425 1425 1425	1350 1350 1350	1010 1010 1000	1175 1175 1175	1400 1400 1400	1300 1300 1300	1000 1000 1000	1150 1150 1150

Send	4-5	1-2	2-3	3-4	4-5		Cal	1-2				
Receive	1.0-1.25 E	1.25-1.5 E	→	→	→							
Time	13:14	13:22	13:25	13:27	13:29		12:00	12:04	12:13			
Range	1.50						.30	.75	1.50			
Current	1400 1400 1390	1325 1325 1325	1000 1000 1000	1150 1150 1150	1360 1360 1360		142.7 142.7 142.7 285.4	336.3 339.2 339.2 675	1.300 1.300 1.300			

Ω 1-2 350, 2-3 500, 3-4 450, 4-5 275

Spread 3

HEINRICHS GEOEXPLORATION COMPANY

INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Page _____

Project Sierrita Line # 2.E 1/2 Field date 11/June/82 Data page #3 Comp. date 13/June/82 Comp by T. Heinrichs

(A) Send	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5	1-2	2-3	3-4
(B) Receive	.25E-.5E	→	.5-.75E	→	→	.75-1.0E	→	→	→	1.0-1.25	→	→
(C) n separation	1	2	1	2	3	1	2	3	4	2	3	4
(D) I	1175	1425	1000	1170	1426	1350	1005	1175	1460	1300	1000	1150
(E) Vdc (avg)	705	109.2	474	138.7	54.7	157.2	51.6	19.7	9.45	71.65	27.6	11.32
(F) DCcal	1.000	→	→	→	→	→	→	→	→	→	→	→
(G) Kn x 10^{-3}	1.75	3	1.75	3	7.5	1.75	3	7.5	15	3	7.5	15
(H) ρdc=ExFxGx10^3/D	423	231	355	356	288	87	154	126	101	165	207	148
(I) Vac Σ	662	103.4	425	127.2	48.9	147.0	47.8	19.6	9.00	71.0	27.2	11.25
(J) AC noise x 2												
(K) Vac(corr) = $\sqrt{I^2 - J^2}$												
(L) AC-DC cal.	1.04	→	→	→	→	→	→	→	→	→	→	→
(M) ρ dc/ρac=ExL/K	1.108	1.160	1.159	1.131	1.163	1.112	1.121	1.045	1.090	1.050	1.055	1.049
(N) PFE=(M-1)(10^2)	11	16	16	13	16	11	12	5	9	5	6	5
(O) MCF=(M-1)(10^5)/H	26	43	45	37	57	129	79	36	89	30	27	33

Project SIERRITA Line # 5-E 1/2 Field date 11/JUNE/82 Data page _____ Comp. date 13/JUNE/82 Comp by T. Heinrichs

(A) Send	4-5	1-2	2-3	3-4	4-5		1-2					
(B) Receive	1.0-1.25	1.35-1.5	→	→	→		CAL					
(C) n separation	5	3	4	5	6							
(D) I	1395	1325	1000	1150	1360		285	675	1.300			
(E) Vdc (avg)	5.70	27.9	11.32	4.95	2.65		28.2	65.6	130.6			
(F) DCcal	1.000	←	←	←	→		1.010	1.029	.996			
(G) Kn x 10^{-3}	26.25	7.5	15	26.25	42			USE (1.000)				
(H) ρ dc=ExFxGx10^3/D	107	158	170	113	82							
(I) Vac Σ	5.70	27.6	11.27	4.85	2.68		29.5	68.5	134.2			
(J) AC noise x 2							1.046	1.043	1.030			
(K) Vac (corr) = $\sqrt{I^2 - J^2}$								(other end incl				
(L) AC-DC cal.	1.040	→	→	→	→		Avg	1.0372	USE 1.04			
(M) ρdc/ρac =ExL/K	1.040	1.050	1.049	1.060	1.029							
(N) PFE=(M-1)(10^2)	4	5	5	6	3							
(O) MCF=(M-1)(10^5)/H	37	32	29	53	35							

50% 34% 67%

INDUCED POLARIZATION - RECEIVER NOTES

PAGE

Project: Sierrile Line: #2 sprdg W/2. Int.Cal 50.0 Date: [illegible]

Send	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2	4-5	3-4	2.3
Rec.	.25-.5 N →						.75	1.00	1.25	1.0		
Time	2:35	2:37	14.44	14.46	14:48	14:55	14:57	14.59	15:01	15:08	15:09	15:11
DC-1	122 122	51.8 51.8	107 107	27.5 27.5	20.9 21.0	119 119	31.5 31.2	15.8 15.8	13.0 13.0	27.2 27.2	13.2 13.2	8.60 8.80
DC-2	121 121	52.0 52.0	107 107	27.5 27.5	20.7 20.7	119 119	32.0 31.8	15.4 15.4	13.5 13.6	27.5 27.5	13.3 13.3	8.62 8.75
Σ	243 243	103.8 103.8	214 214	55.0 55.0	41.6 41.7	238 238	63.5 63.0	31.2 31.2	26.5 26.6	54.7 54.7	26.5 26.5	17.22 17.55
DC-3	122 122	51.8 51.9	107 107	27.5 27.5	20.9 20.9	119 119	31.2 31.2	15.8 15.8	13.0 13.0	27.2 27.5	13.3 13.2	8.80 8.82
Dc-4	121 121	52.0 51.9	107 107	27.5 27.5	20.7 20.7	119 119	31.8 31.8	15.4 15.4	13.5 13.5	27.5 27.5	13.3 13.3	8.65 8.72
Σ	243 243	103.8 103.8	214 214	55.0 55.0	41.6 41.6	238 238	63.0 63.0	31.2 31.2	26.5 26.5	54.7 54.0	26.6 26.5	17.45 17.54
DC-AV	243	103.8	214	55.0	41.6	238	63.1	31.2	26.5	54.7	26.5	17.44
AC-1	108	45.2	103	27.0	19.8	119	31.5	15.4	13.2	27.5	13.3	8.45
AC-2	107	45.2	103	27.0	19.9	118	31.5	15.5	13.2	27.9	13.3	8.48
Σ	218	90.4	206	54.0	39.7	237	63.0	30.9	26.4	55.4	26.6	16.93
S. P.	+22.1		-2.4			+2.0				-11.5		
AC-N		.05			.06				.05			

INDUCED POLARIZATION - RECEIVER NOTES PAGE

Project: Sierrita Line: #2 spread #3 - W/2 Int.Cal 498 Date: 11/June

	1-2	4-5	3-4	2-3	1-2	S.P	4-5			4.5	.75	1.50
Send										3.0		
Rec.	1.0-1.25	1.25-1.50	→		→	0-.025	CAL					
Time	15.14	15:22	15:24	15:26	15:29			2:29	2:31		15:42	15:43
DC-1	8.45 8.40	11.2 11.3	6.60 6.65	4.95 4.95	5.05 4.95	Opot Base	14.6	33.0	67.2	14.5	33.2	70.2
DC-2	8.55 8.60	10.8 10.8	6.85 6.75	5.00 5.00	4.95 5.00		14.5	33.2	67.8	14.2	33.2	70.5
Σ	17.00 17.00	22.0 22.1	13.45 13.40	9.95 9.95	10.00 9.95		29.1	66.2	135.0	28.7	66.4	140.7
DC-3	8.40 8.42	11.2 11.2	6.70 6.68	4.90 4.82	4.85 4.82		14.6	33.0	67.0	14.5	33.2	70.0
Dc-4	8.55 8.50	10.8 10.8	6.75 6.75	5.10 5.12	5.05 5.02		14.4	33.2	67.8	14.2	33.2	70.2
Σ	17.05 17.07	23.0 23.0	13.45 13.43	10.00 9.94	9.90 9.99		29.0	66.2	134.8	28.7	66.4	140.2
DC-AV	11.97	22.0	13.43	9.96	9.92							
AC-1	8.18	11.1	6.60	4.90	4.85		15.1	34.8	68.5	15.1	35.0	72.0
AC-2	8.18	11.0	6.65	4.90	4.95		14.9	34.5	69.0	14.9	35.0	71.5
Σ	16.36	22.1	13.25	9.80	9.80		30.0	69.3	137.5	30.0	70.0	143.5
S. P.		+44.0				+18.1						
AC-N	.05				.07							

INDUCED POLARIZATION SENDER NOTES

Project: Sierrita Line: #2 W 1/2 spread #3 Date: 11/8

Send	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2	4-5	3-4	2-3
Receive	.25-.5 W →		.5-.75 W →		→	.75-1.0 W →			→	1.0-1.25 W →		→
Time	14:35	14:37	14:44	14:46	14:48	14:55	14:57	14:59	15:01	15:08	15:09	15:11
Range	1.50	~	~	~	~	~	~	~	~	~	~	→
Current	1000 990 1000	1300 1300 1310	1150 1150 1150	1000 990 1000	1275 1275 1275	1350 1350 1350	1140 1140 1140	990 990 990	1295 1275 1275	1350 1350 1350	1150 1140 1140	1000 990 1080
Send	1-2	4-5	3-4	2-3	1-2		Cal	4-5				
Receive	.10-1.25 W	1.25-1.5 W	→	→	→							
Time	15:14	15:22	15:24	15:26	15:29		14:28	14:29	14:31	15:40	15:42	15:43
Range	1.50	~	~	~	→		.30	.75	1.50	.30	.75	1.50
Current	1290 1290 1290	1350 1350 1340	1140 1140 1140	1000 990 1000	1275 1275 1275		290 290 290	650 650 650	1275 1275 1275	290 290 290	650 650 650	1350 1350 1350

Sprd 3

HEINRICHS GEOEXPLORATION COMPANY

INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Page_____

Project SIERRITA Line #2-W 1/2 Field date 11/JUNE/82 Data page_____ Comp. date 13/JUNE/82 . Comp by_____

(A) Send	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2	4-5	3-4	2-3
(B) Receive	.25-.5 W	→	.5-.75	→	→		.77-1.0					
(C) n separation	1	2	1	2	3	1	2	3	4	2	3	4
(D) I	1000	1300	1150	1000	1275	1350	1146	990	1275	1350	1145	1000
(E) Vdc (avg)	243	102.8	214	55.0	41.6	238	63.1	31.2	26.5	54.7	26.5	17.44
(F) DCcal	1.000	→	→	→	→	→	→	→	→	→	→	→
(G) Kn x 10^{-3}	.75	3	.75	3	7.5	.75	3	7.5	15	3	7.5	15
(H) ρdc=ExFxGx10^3/D	182	237	140	165	244	132	166	236	312	121	173	262
(I) Vac Σ	215	90.4	206	54.0	39.7	237	63.0	30.4	26.4	55.4	26.6	16.93
(J) AC noise x 2												
(K) Vac(corr) =$\sqrt{I^2 - J^2}$												
(L) AC-DC cal.	1.040	→	→	→	→	→	→	→	→	→	→	→
(M) ρdc/ρac=ExL/K	1.177	1.191	1.080	1.059	1.089	1.045	1.039	1.050	1.042	1.028	1.036	1.070
(N) PFE=(M-1)(10²)	18	19	8	6	9	5	4	5	4	3	4	7
(O) MCF=(M-1)(10⁵)/H	97	81	57	36	36	34	23	21	13	23	21	27

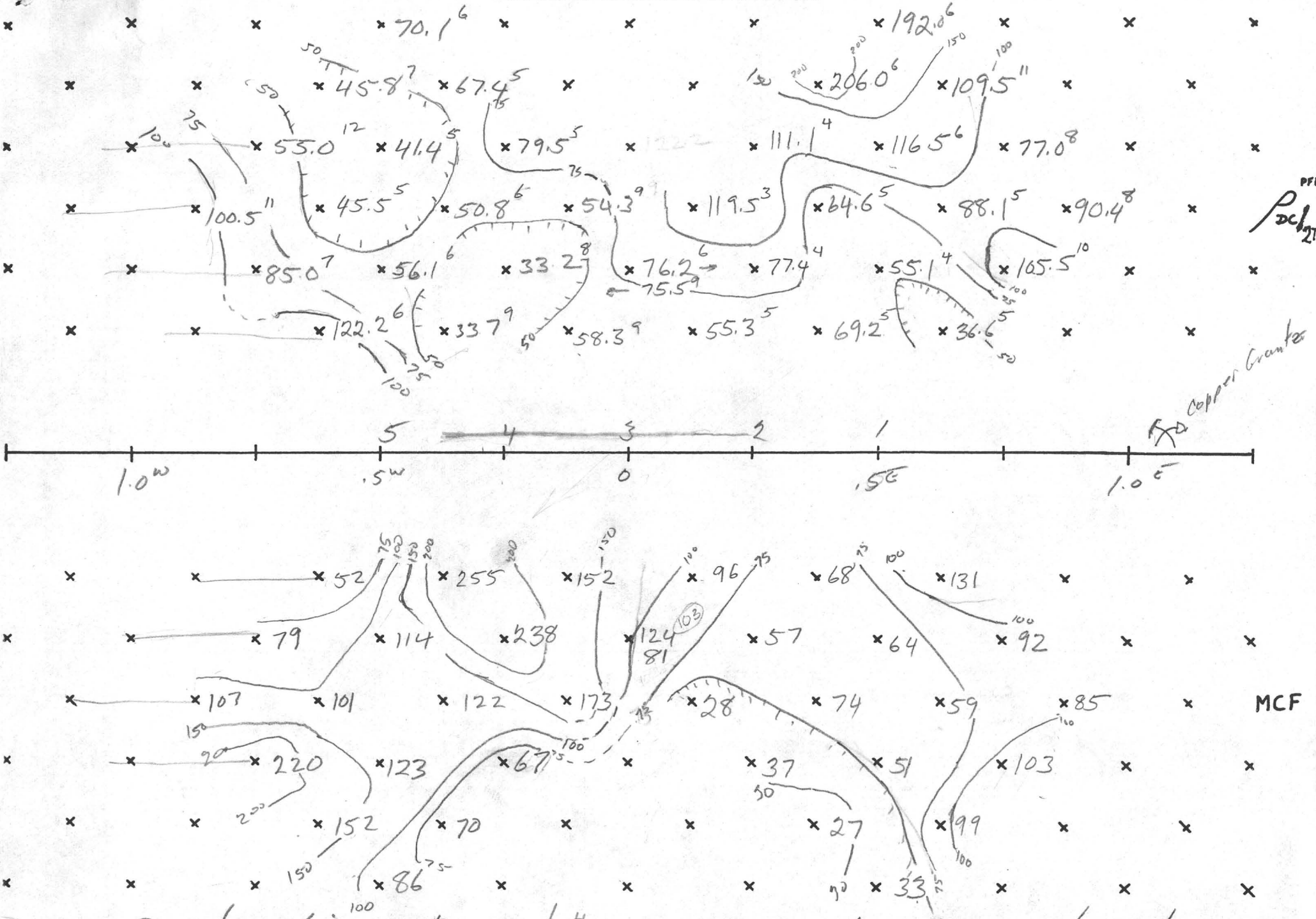
Project_____ Line_____ Field date_____ Data page_____ Comp. date_____ Comp by_____

(A) Send	1-2	4-5	3-4	2-3	1-2		4-5					
(B) Receive	1.0-1.25	1.25-1.5	→	→	→		CAL					
(C) n separation	5	3	4	5	6							
(D) I	1290	1350	1140	1000	1275		290	650	1275	290	650	1350
(E) Vdc (avg)	16.97	23.0	13.43	9.96	9.92		29.1	66.2	134.9	28.7	66.4	140.5
(F) DCcal	1.000	→	→	→	→		.998	.983	.947	1.010	.980	.963
(G) Kn x 10^{-3}	26.25	7.5	15	26.25	42			DC AVG (with other end) = .991				use 1.0
(H) ρdc=ExFxGx10^3/D	346	122	177	261	326							
(I) Vac Σ	16.36	22.1	13.25	9.80	9.80		30.0	69.3	137.5	30.0	70.0	143.5
(J) AC noise x 2							1.030	1.046	1.021	1.045	1.053	1.021
(K) Vac (corr) =$\sqrt{I^2 - J^2}$							Avg	1.0372 (other end in)			Use	1.040
(L) AC-DC cal.	1.04	→	→	→	→							
(M) ρdc/ρac =ExL/K	1.079	1.035	1.055	1.055	1.051							
(N) PFE=(M-1)(10²)	8	4	6	6	5							
(O) MCF=(M-1)(10⁵)/H	23	29	31	21	16							

50 35 68 50 55 72

Line 2 - Spn. 2

INDUCED POLARIZATION WORK SHEET



Area Sierrita Line # 2 - Sprd. #2 Scale 1" = 250' Date 9/June/62

INDUCED POLARIZATION - RECEIVER NOTES PAGE

Project: Sierrita Line: 4 - E 1/2 Int.Cal 50.0 s Date: 8/June

A = 2.50

	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5	1-2	2-3	3-4
Send												
Rec.	.25-.50	→	.5-.75	→	→	.75-1.0	1.0-1.25	1.0-1.25	1.25	1.0-1.25		
Time			12:16	12:48			1:01					
DC-1	52.5 52.5	17.5 17.6	64.0 64.0	17.8 17.8	10.5 10.5	63.5 63.8	12.4 12.4	6.00 6.00	4.95 4.95	26.1 26.5	8.0 8.0	5.47 5.4
DC-2	5-2.5 52.5	16.9 16.8	65.0 65.0	17.8 17.8	10.6 10.6	62.8 62.8	12.9 12.9	6.00 5.95	4.95 4.95	25.8 26.1	8.2 8.2	5.35 5.36
Σ	105.0 105.0	34.4 34.4	129.0 129.0	35.6 35.6	21.1 21.1	66.3 66.2	25.3 25.3	12.0 11.95	9.90	51.9 52.6	16.2 16.2	10.77 10.76
DC-3	52.0 52.3	17.4 17.5	63.7 64.0	17.8 17.8	10.5 10.5	63.5 63.5	12.4 12.5	6.02 6.05	4.95 4.90	26.3 26.4	8.1 8.1	5.4 5.39
Dc-4	52.5 52.0	16.9 16.9	64.8 65.0	17.8 17.8	10.6 10.6	62.8 62.8	12.9 13.0	5.98 5.95	4.95 5.00	26.1 26.1	8.2 8.2	5.36 5.38
Σ	104.5 104.5	34.3 34.4	128.5 129.0	35.6 35.6	21.1 21.1	66.3 66.3	25.3 25.5	12.0 12.0	9.90	52.4 52.5	16.3 16.3	10.76 10.77
DC-AV	104.75	34.4	129.0	35.6	21.1	66.3	25.3	12.0	9.90	52.4	16.25	10.765
AC-1	52.0	16.9	64.5	17.8	10.7	63.0	12.7	6.00	4.95	24.9	8.1	5.3
AC-2	51.8	16.9	64.2	17.8	10.6	63.0	12.8	5.95	4.97	25.0	8.0	5.3
Σ	103.8	33.8	128.7	35.6	21.3	66.0	25.5	11.95	9.92	49.9	16.1	10.6
S. P.	-2.3	-2.9	-0.5	+0.9	+0.9	+10.0	+9.5	+8.8	+8.8	-27.5	-27.5	
AC-N		.04			0.05				.05			

INDUCED POLARIZATION - RECEIVER NOTES PAGE

Project: _____ Line: # 4 E/2 Int.Cal ~80 Date: 8/June

Send	4-5	1-2	-2-3	3-4	4-5	SP							
Rec.	"					0-0.5							
Time	1:29												
DC-1	5.10 5.20	7.9 7.9	3.55 3.52	2.95 2.95	2.98 2.99	base							
DC-2	5.10 5.15	8.4 8.4	3.55 3.54	2.79 2.79	3.02 3.02	pot							
Σ	10.20 10.35	16.3 16.3	7.10 7.06	5.74 5.74	6.00 6.01	at							
DC-3	5.20 5.15	7.9 7.9	3.55 3.55	2.95 2.96	3.00 2.98	0							
Dc-4	5.15 5.20	8.4 8.4	3.50 3.52	2.78 2.78	3.02 3.02								
Σ	10.35 10.35	16.3	7.05 7.07	5.73 5.74	6.02 6.00								
DC-AV	10.31	16.3	7.07	5.74	6.01								
AC-1	5.10	7.9	3.42	2.70	2.98								
AC-2	5.10	7.9	3.43	2.71	2.95								
Σ	10.20	15.8	6.85	5.41	5.90								
S. P.		+22.6	+21.6		+21.3	-4.0							
AC-N	.05				.05								

INDUCED POLARIZATION SENDER NOTES

Project: Sierra Rita Line: II 4 E/2 Date: 6-8-62

Send	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5	1-2	2-3	3-4
Receive												
Time	12:00 1.5	12:05	12:28	12:48	12:50	12:59	13:02	13:04	13:07	13:22	13:25	13:27
Range	180	240	180	180	230	180	180	180	240	180	180	180
AC-1	712.2	680.4	704.1	679.7	662.8	677.2	686.7	702.4	668.1	680.2	690.5	691.5
DC	709.5	675.0	693.6	700.0	661.0	677.2	690.4	700.0	668.1	680.2	690.5	692.8
AC-2	708.1	675.0	693.6	700.0	661.0	677.2	691.2	690.8	668.1	680.2	690.5	692.8
Send	4-5	1-2	2-3	3-4	4-5		Cal	4-5				
Receive												
Time	13:29 1.5	13:35	13:38	13:41	13:44		13:57 .30	13:58 .75	1.5			
Range	240	180	180	180	240		60	140				
AC-1	669.3	675.5	689.0	687.8	658.8		732.1	326.6				
DC	669.3	675.5	687.8	687.8	658.8		730.1	324.2				
AC-2	668.2	675.5	687.8	687.8	658.8							

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INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Page_____

Project Sierrita Line #4-E1/2 Field date 8 Jan 82 Data page_____ Comp. date_____. Comp by_____

(A) Send	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5	1-2	2-3	3-4
(B) Receive	0.25-.5E	→	.5-.75E	→	→	.75-1.0E	→	→	→	1.0-1.25E	→	→
(C) n separation	1	2	1	2	3	1	2	3	4	2	3	4
(D) I	1420	1355	1398	1380	1324	1354	1378	1393	1336	1360	1381	1384
(E) Vdc (avg)	104.75	34.4	129.0	35.6	21.1	66.3	25.3	12.0	9.90	52.4	16.25	10.765
(F) DCcal	1.000	—	—	—	—	—	—	—	—	—	—	→
(G) Kn x 10^{-3}	.75	3	.75	3	7.5	.75	3	7.5	15	3	7.5	15
(H) ρdc=ExFxGx10^3/D	55.3	76.2	69.2	77.4	119.5	36.6	55.1	64.6	111.1	105.5	88.1	116.5
(I) Vac Σ												
(J) AC noise x 2												
(K) Vac(corr) = $\sqrt{I^2 - J^2}$	103.8	33.8	128.7	35.6	21.3	66.0	25.5	11.95	9.92	49.9	16.1	10.6
(L) AC-DC cal.	1.044	—	—	—	—	—	—	—	—	—	—	→
(M) ρ dc/ρac=ExL/K	1.053	1.062	1.047	1.044	1.034	1.048	1.035	1.048	1.041	1.097	1.052	1.059
(N) PFE=(M-1)(10^2)	5	6	5	4	3	5	4	5	4	10	5	6
(O) MCF=(M-1)(10^5)/H	96	81	68	57	28	131	64	74	37	92	59	31

Project_____ Line_____ Field date_____ Data page_____ Comp. date_____ Comp by_____

(A) Send	4-5	1-2	2-3	3-4	4-5							
(B) Receive	1.0-1.25E	1.25-1.5E	→	→	→							
(C) n separation	5	3	4	5	6							
(D) I	1315	1351	1377	1376	1318							
(E) Vdc (avg)	10.31	16.3	7.07	5.74	6.01							
(F) DCcal	1.000	—	—	—	→							
(G) Kn x 10^{-3}	26.25	7.5	15	26.25	42							
(H) ρ dc=ExFxGx10^3/D	206.0	90.4	77.0	109.5	192							
(I) Vac Σ												
(J) AC noise x 2												
(K) Vac (corr) = $\sqrt{I^2 - J^2}$	10.20	15.8	6.85	5.41	5.90							
(L) AC-DC cal.	1.044	—	—	—	→							
(M) ρdc/ρac =ExL/K	1.055	1.077	1.079	1.108	1.063							
(N) PFE=(M-1)(10^2)	6	8	8	11	6							
(O) MCF=(M-1)(10^5)/H	27	85	103	99	33							

INDUCED POLARIZATION - RECEIVER NOTES PAGE

Project: Sierrita Line: Line 4 W 1/2 Int.Cal 50.0 S Date: 8/TUG 1X

a = 250' B(13.05) 50.0 F

Send	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2	4-5	3-4	2-3
Rec.	.25-.5w	→	.5w-.75	→	→	.75w-1.0w	→	→	→	1.0w-1.25	→	→
Time				10:57		11:05						
DC-1	55.0 54.9	17.8 17.6	31.8 31.7	8.0 8.0	5.10 5.10	112 113	13.3 13.4	4.70 4.68	3.68 3.65	19.3 19.3	4.22 4.25	1.96 1.96
DC-2	55.0 55.1	17.7 17.9	32.5 32.5	7.7 7.7	5.00 5.00	112 112	13.2 13.2	4.78 4.80	3.61 3.61	19.4 19.3	4.35 4.35	1.90 1.91
Σ	110.0 110.0	35.5 35.5	64.3 64.2	15.7 15.7	10.1 10.1	224 225	26.5 26.6	9.48 9.48	7.29 7.26	38.7 38.6	8.57 8.60	3.86 3.87
DC-3	54.5 54.0	17.3 17.1	31.5 31.5	8.0 8.0	5.10 5.08	113 113	13.4 13.3	4.65 4.65	3.62 3.62	19.3 19.3	4.25 4.25	1.94 1.93
Dc-4	55.5 56.0	18.1 18.3	32.7 32.2	7.7 7.7	5.00 5.00	112 112	13.1 13.1	4.80 4.80	3.62 3.65	19.3 19.3	4.35 4.32	1.91 1.92
Σ	109.5 110.0	35.4 35.4	64.2 63.7	15.7 15.7	10.1 10.08	225 225	26.5 26.4	9.45 9.45	7.24 7.27	38.6 38.6	8.60 8.57	3.85 3.85
DC-AV	110.0	35.45	64.1	15.7	10.1	225	26.5	9.465	7.265	38.6	8.585	3.86
AC-1 ✓	52.8	16.9	30.8	7.7	4.82	110	13.0	4.65	3.60	18.9	4.28	1.91
AC-2 ✓	52.8	16.9	30.8	7.5	4.82	111	13.0	4.65	3.60	18.9	4.28	1.92
Σ	105.6	33.8	61.6	15.2	9.64	221	26.0	9.30	7.20	37.8	8.56	3.83
S. P.	+5.1	→ +9.7	+3.6	→ +0.6	→ +0.3	-3.3	-6.3			-10.1	-11.1	-11.5
AC-N		.05			.04				.05			

13.2 INDUCED POLARIZATION - RECEIVER NOTES PAGE

Project: Sierrita Line: #4 - W 1/2 Int.Cal 50.0 F Date: 8/ July

Send	1-2	4-5	3-4	2-3	1-2	SP	4-5					
Rec.	1.0-1.25"	1.25"-1.5"	→	→	→	0-0.25"						
Time	11:26				11:43							
DC-1	1.79 1.80	9.0 9.0	2.53 2.53	1.20 1.20	1.17 1.13	n	13.4	31.3	68.0	13.2	32.0	
DC-2	1.78 1.77	9.1 9.1	2.63 2.65	1.23 1.24	1.15 1.14	"	13.3	31.3	68.0	13.2	32.0	
Σ	3.57 3.57	18.1 18.1	5.16 5.18	2.43 2.44	2.27 2.27	Base	26.7	62.6	136.0	26.4	64.0	
DC-3	1.80 1.81	9.0 9.0	2.51 2.51	1.20 1.19	1.14 1.14	pot at	13.4	31.3	68.0	13.2	32.0	
Dc-4	1.77 1.76	9.2 9.2	2.67 2.67	1.24 1.23	1.14 1.14	0	13.3	31.3	68.0	13.2	32.0	
Σ	3.57 3.57	18.2 18.2	5.18 5.18	2.44 2.42	2.28 2.28		26.7	62.6	136.0	26.4	64.0	
DC-AV	3.57	18.15	5.18	2.43	2.275		26.7	62.6	136.0	26.4	64.0	
AC-1	1.78	8.50	2.40	1.19	1.12		13.9	33.0	69.8	13.8	33.8	
AC-2	1.78	8.6	2.42	1.18	1.12		13.9	33.0	69.8	13.8	33.8	
Σ	3.56	17.10	4.82	2.37	2.24		27.8	66.0	139.6	27.6	67.6	
S. P.	-11.8	+15.6	+14.6	+13.8	+13.4	-2.4						
AC-N	.05				.06							

INDUCED POLARIZATION SENDER NOTES

Project: Sierrita Line: #4 W 1/2 a = 250' Date: 6/8/62.

Send	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2	4-5	3-4	2-3
Receive												
Time	10:42 1.5	10:46 1.5	10:53	10:56	10:58	11:05	11:08	11:10	10:12	11:20	11:23	11:25
Range AC-1	180 709.4	190 707.6	180 718.7	190 712.0	190 700.0	Full 688.7	180 708.7	180 700.0	180 686.2	040 682.8	180 708.1	180 700
Current DC DC-2	707.0 707.0	705.0 702.4	716.8 704.9	709.6 708.1	696.3 696.3	689.6 689.6	705.9 705.9	697.0 698.6	683.6 683.6	682.8 680.0	708.1 708.1	699.7 699.7

Send	1-2	4-5	3-4	2-3	1-2		Cal	4-5				
Receive												
Time	10:27 1.5	10:35	10:38	10:40	10:43		10:28 .30	10:30 .75	10:34 1.5			
Range AC-1	190 695.7	040 678.4	180 708.2	180 695.3	180 680.4		60 132.9	120 322.6	full 676.8			
Current DC DC-2	695.7 695.7	678.4 678.4	708.2 708.2	695.3 695.3	680.4 680.4		132.9 132.9	318.6 318.6	689.7 692.7			

@ 1-2 300, 2-3 250, 3-4 300, 4-5 400

HEINRICHS GEOEXPLORATION COMPANY

INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Page_____

Project Sierrita Line #4-W1/2 Field date 8/June Data page_____ Comp. date_____. Comp by_____

(A) Send	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2	4-5	3-4	2-3
(B) Receive	.25-.50W	→	.5-.75W	→	→	.75-1.0W	→	→	→	1.0-1.25W	→	→
(C) n separation	1	2	1	2	3	1	2	3	4	2	3	4
(D) I	1416	1410	1424	1420	1396	1378	1415	1399	1370	1363	1416	1400
(E) Vdc (avg)	110.0	35.45	64.1	15.7	10.1	225.0	26.5	9.465	7.265	38.6	8.585	3.86
(F) DCcal	1.000	→	→	→	→	→	→	→	→	→	→	→
(G) Kn x 10^{-3}	.75	3	.75	3	7.5	.75	3	7.5	15	3	7.5	15
(H) ρdc=ExFxGx10^3/D	58.3	75.5	33.7	33.2	54.3	122.2	56.1	50.8	79.5	85.0	45.5	41.4
(I) Vac Σ												
(J) AC noise x 2												
(K) Vac(corr) = $\sqrt{I^2 - J^2}$	105.6	33.8	61.6	15.2	9.64	221.0	26.0	9.30	7.20	378	8.57	3.83
(L) AC-DC cal.	1.044	→	→	→	→	→	→	→	→	→	→	→
(M) ρdc/ρac=ExL/K	1.089	1.094	1.086	1.079	1.094	1.064	1.064	1.062	1.053	1.067	1.046	1.051
(N) PFE=(M-1)(10^2)	9	9	9	8	9	6	6	6	5	7	5	5
(O) MCF=(M-1)(10^5)/H	152	124	255	238	173	52	114	122	67	79	101	123

Project_____ Line_____ Field date_____ Data page_____ Comp. date_____ Comp by_____

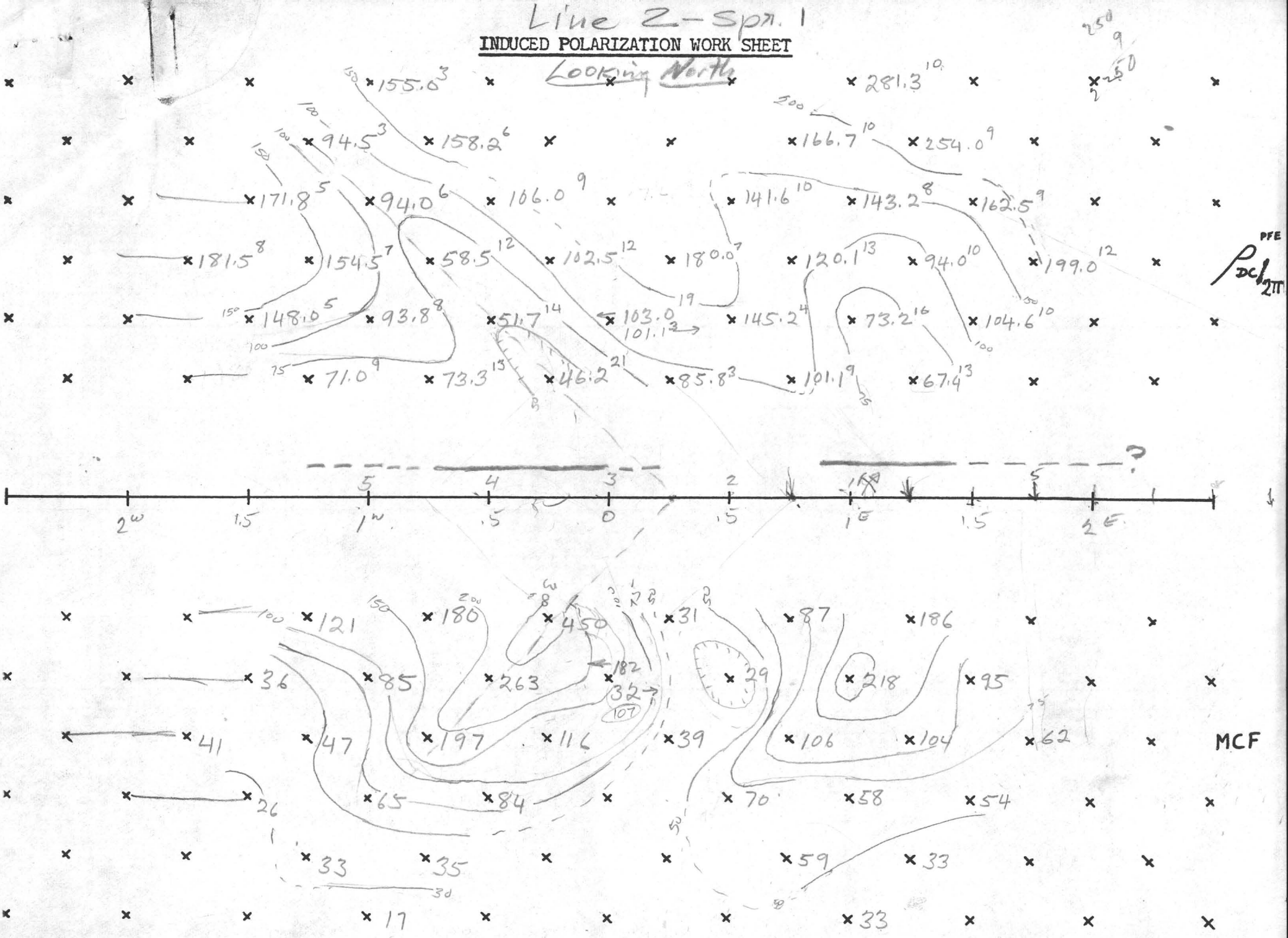
(A) Send	1-2	4-5	3-4	2-3	1-2		4-5	→	→	→	→	→
(B) Receive	1.0-1.25W	1.25-1.5W	→	→	→		Cal					
(C) n separation	5	3	4	5	6							
(D) I	1391	1357	1416	1391	1361		265.8	641.2	1370	264.2	650.8	
(E) Vdc (avg)	3.57	18.15	5.18	2.43	2.275		26.7	62.6	136.0	26.4	64.0	
(F) DCcal	1.000	→	→	→	→		.995	1.024	1.008	1.000	1.016	Use 1.000
(G) Kn x 10^{-3}	26.25	7.5	15	26.25	42							
(H) ρdc=ExFxGx10^3/D	67.4	100.5	55.0	45.8	70.1							
(I) Vac Σ												
(J) AC noise x 2												
(K) Vac (corr) = $\sqrt{I^2 - J^2}$	3.56	17.10	4.82	2.37	2.24		2.78	6.60	13.96	2.76	6.76	Ave Use
(L) AC-DC cal.	1.044	→	→	→	→		1.041	1.052	1.027	1.045	1.055	1.044
(M) ρdc/ρac =ExL/K	1.047	1.108	1.121	1.070	1.060							
(N) PFE=(M-1)(10^2)	5	11	12	7	6							
(O) MCF=(M-1)(10^5)/H	70	107	220	152	86							

1.50% 33 mv 70%

Line 2 - Spn. 1

INDUCED POLARIZATION WORK SHEET

Looking North



Area Sierrita - Line #2 Spn #1 Scale 1" = 500' Date 2/June/69

Relays w/ Edwards

0.2 Shunt Cap. Current

Sward Keith

INDUCED POLARIZATION — SENDER NOTES

Page (2)

Project: Sierrita Line: 2 W/ (1.5 ⅜ X 2) 0.30 & 0.15N Date: 6/1/62

Send	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2	4-5	3-4	2-3
Receive	0.5W	1.0W	1.0W	1.5W	→	1.5W	2.0W	→	→	2.0W	2.5W	→
Time	5:35 180	5:40 210	5:47 210	5:49 160	5:52 200	6:00 200	6:02 200	6:04 180	6:06 190	6:18 180	6:20 190	6:22 170
Range	1370	1345	1370	1345	1340	1370	1340	1370	1310	1340	1315	1365
Current AC	699.8	683.8	699.0	684.0	678.5	698.5	679.5	697.0	663.5	686.5	667.0	693.0
DC	696.0	683.0	695.0	683.0	677.5	696.0	679.0	696.0	661.0	681.0	666.0	693.0
AC	693.0	684.5	692.0	683.0	677.5	695.5	678.5	695.5	663.0	680.0	667.0	692.5

Send	1-2	4-5	3-4	2-3	1-2		CALIBRATE 4-5 →					
Receive	→	2.5W	3.0W	→	→		0.5W	→				
Time	6:25	6:35	6:37	6:39	6:45		7:00 1.50	7:03 0.75	7:05 0.3			
Range	200 1335	180 1345	200 1340	180 1370	210 1350		200 1355	110 630	60 280			
Current AC	678.0	683.5	680.0	696.0	684.5		688.0	320.0	137.5			
DC	676.0	680.0	678.5	"	683.0		684.0	319.5	137.0			
AC	676.0	679.0	680.0	695.5	684.5		"	318.0	136.5			

(AC 694.0 @ 6:45) ← AC Potential at Receiver Same for 23½ 1-2)

INDUCED POLARIZATION - RECEIVER NOTES

DCN .15

Project: Sierrita Line: #2 W. END Int.Cal Date: 6-1-82

Send	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2	4-5	3-4	2-3
Rec.												
Time												
DC-1	21.4 21.6	11.8 11.7	34.0 33.5	5.95 5.90	4.60 4.70	33.0 33.0	11.0 11.0	2.75 2.75	2.35 2.37	17.2 17.2	7.10 7.05	2.24 2.24
DC-2	21.4 21.3	11.8 11.7	34.5 34.5	5.80 5.80	4.60 4.58	33.0 33.0	10.2 10.2	2.69 2.69	2.32 2.35	16.5 16.5	7.30 7.30	2.12 2.11
Σ	42.8 42.9	23.6 23.4	68.5 68.0	11.75 11.70	9.20 9.28	66.0 66.0	21.2 21.2	5.44 5.44	4.67 4.68	33.7 33.7	14.40 14.35	4.36 4.35
DC-3	21.5 21.4	11.7 11.7	33.5 33.5	5.90 5.88	4.75 4.75	33.2 33.0	11.0 11.0	2.77 2.76	2.34 2.35	17.2 17.2	7.05 7.08	2.25 2.26
Dc-4	21.3 21.2	11.7 11.8	34.5 34.5	5.82 5.87	4.55 4.50	32.8 33.0	10.2 10.2	2.68 2.67	2.36 2.34	16.4 16.4	7.30 7.70	2.09 2.11
Σ	42.8 42.6	23.4 23.5	68.0 68.0	11.72 11.70	9.38 9.25	66.0 66.0	21.2 21.2	5.45 5.43	4.70 4.69	33.6 33.6	14.35 14.38	4.34 4.31
DC-AV	42.8	23.5	68.0	11.72	9.26	66.0	21.2	5.44	4.685	33.65	14.37	4.345
AC-1	18.6	10.3	31.5	5.45	4.35	31.8	10.3	2.56	2.26	16.8	7.0	2.14
AC-2	18.7	10.5	31.5	5.45	4.35	32.0	10.3	2.56	2.26	16.7	7.02	2.15
Σ	37.3	20.8	63.0	10.90	8.70	63.8	20.6	5.12	4.52	33.5	14.02	4.29
S. P. +	23.7		-11.5			+22.3				-4.4		
AC-N		.12			.10				.10			

INDUCED POLARIZATION - RECEIVER NOTES PAGE

Project: Sierrita Line: #2 W. END Int.Cal 50.0 Date:

Send	1-2	4-5	3-4	2-3	1-2		Cal.	3-4		S.P.	S.P.	
Rec.										0-.54	0-.5	
Time												
DC-1	2.03 2.03	8.40 8.40	3.85 3.85	1.32 1.33	1.25 1.22		68.5	31.5	13.9			
DC-2	2.05 2.08	8.10 8.05	3.91 3.95	1.21 1.20	1.28 1.30		69.0	31.5	13.9			
Σ	4.08 4.11	16.50 16.45	7.76 7.80	2.53 2.53	2.53 2.52		137.5	63.0	27.8			
DC-3	2.00 2.02	8.45 8.48	3.80 3.80	1.35 1.38	1.33 1.22		68.5	31.5	13.9			
Dc-4	2.06 2.06	8.05 8.08	4.00 4.00	1.19 1.16	1.20 1.29		68.5	31.5	13.9			
Σ	4.06 4.08	16.50 16.56	7.80 7.80	2.54 2.54	2.53 2.51		137.0	63.0	27.8			
DC-AV	4.08	16.50	7.79	2.535	2.52		137.25	63.0	27.8			
AC-1	2.03	8.05	3.92	1.29	1.29		71.5	33.9	14.7			
AC-2	2.03	8.05	3.90	1.29	1.29		71.5	33.5	14.7			
Σ	4.06	16.18	7.82	2.58	2.58		143.0	67.4	29.4			
S. P.		-13.6								-6.4	+2.4	
AC-N	.06				.05							

my pot base

my pot base

HEINRICHS GEOEXPLORATION COMPANY

INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Page 2

Project Sierita Line 2 W1/2 Field date 6/1/62 Data page 2 Comp. date 6/2/62 Comp by FAS & WAH

(A) Send	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2	4-5	3-4	2-3
(B) Receive	0.5W-	1.0W	1.0W-	1.5W	→	1.5W-	2.0W	→		2.0W-	2.5W	
(C) n separation	1	2	1	2	3	1	2	3	4	2	3	4
(D) I	1393	1368	1391	1367	1356	1394	1358	1393	1327	1367	1334	1386
(E) Vdc (avg)	42.8	23.5	68.0	11.79	9.26	66.0	21.2	5.44	4.685	33.65	14.37	4.345
(F) DCcal	1.000	—	—	—	—	—	—	—	—	—	—	→
(G) Kn x 10^{-3}	1.5	6	1.5	6	15	1.5	6	15	30	6	15	30
(H) ρdc=ExFxGx10^3/D	46.2	103.0	73.3	51.7	102.5	71.0	93.8	58.5	106.0	148	154.5	94.0
(I) Vac Σ	37.3	20.8	63.0	10.90	8.70	63.8	20.6	5.12	4.52	33.5	14.02	4.29
(J) AC noise x 2	.24	→	.20	→	→	.20	→	→	→	.12	→	→
(K) Vac(corr) = $\sqrt{I^2 - J^2}$												
(L) AC-DC cal.	1.050	—	—	—	—	—	—	—	—	—	—	→
(M) ρ dc/ρac=ExL/K	1.208	1.188	1.132	1.136	1.119	1.086	1.080	1.115	1.089	1.053	1.073	1.061
(N) PFE=(M-1)(10^2)	21	19	13	14	12	9	8	12	9	5	7	6
(O) MCF=(M-1)(10^5)/H	450	182	180	263	116	121	85	197	84	36	47	65

Project ____ Line ____ Field date ____ Data page ____ Comp. date ____ Comp by ____

(A) Send	1-2	4-5	3-4	2-3	1-2							
(B) Receive	→	2.5W-	3.0W	→								
(C) n separation	5	3	4	5	6		1.50	0.75	0.3			
(D) I	1354	1363	1366	1392	1369		1372	6.38	274			
(E) Vdc (avg)	4.08	16.50	7.79	2.535	2.52		137.25	63.0	27.8			
(F) DCcal	1.000	—	—	—	→		1.000	1.010	.997	use 1.000		
(G) Kn x 10^{-3}	52.5	15	30	52.5	84							
(H) ρ dc=ExFxGx10^3/D	158.2	181.5	171.8	94.5	155							
(I) Vac Σ	4.06	16.10	7.82	2.58	2.58		143.0	67.4	29.4			
(J) AC noise x 2	.12	.16	—	—	→							
(K) Vac (corr) = $\sqrt{I^2 - J^2}$												
(L) AC-DC cal.	1.050	—	—	—	→		1.041	1.069	1.058	1.04833	use 1.05	
(M) ρdc/ρac =ExL/K	1.056	1.075	1.045	1.031	1.026							
(N) PFE=(M-1)(10^2)	6	8	5	3	3							
(O) MCF=(M-1)(10^5)/H	35	41	26	33	17							

72% 84% 50%

0.2 Shunt Cap. Current X 2 @ 1.5

INDUCED POLARIZATION SENDER NOTES

Seward Keith Reeves WEH

Project: Sierrita Line: 2E 1/2 Date: 6/1/62

						300	300	300	250			
Send	3-4	4-5	2-3	3-4	4-5	1-2 Cut Jawa Shaft 100'E	2-3	3-4	4-5	1-2	2-3	3-4
Receive	0.5E-1.0E →		1.0E-1.5E →			1.5E-2.0E →				2.0E-2.5E →		
Time	3:27 230	3:30 200	3:38 170	3:41 220	3:43 220	~~3:53~~ 4:18 230	4:14 170	4:15 220	4:29 210	4:40 210	4:41 170	4:43 210
Range	1380 704.6	1370 —	1380 702.5	1365 694.5	1380 699.9	1360 ~~705.6~~	1350 690.0	1350 687.0	1365 700.0	1360 693.5	1360 694.5	1340 683.5
Current AC	— 701.0	697.0 "	700.8 699.0	693.5 693.5	702.5 702.8	~~702.5~~ ~~696.5~~	689.6 689.0	686.0 "	699.0 697.0	691.0 689.5	" 693.0	683.0 "
Send	4-5	1-2	2-3	3-4	4-5	694.0 AC 692.5 DC	1-2 CALIBRATE 3V ± 0.05 N					
Receive	→	Just Below Hill Top on W 2.5E-3.0E	→			692.0 AC On-off	1E 0.2 Shunt Cap					
Time	4:45 200	4:55	4:59	5:02	5:05	Change Switch	3:14 170	3:16 130	3:19 210			
Range	1350	200 1330	170 1350	200 1320	200 1350	Start with E1	285	650	1360			
Current AC DC AC	690.5 689.5 689.0	683.0 680.0 678.0	690.1 690.8 690.0	674.0 673.0 673.5	688.0 688.0 "	AC:	139.7 139.0	329.5 327.9	690.2 —			
						on Receiver	139.0	326.7	—			

Note

INDUCED POLARIZATION - RECEIVER NOTES PAGE

Project: _____ Line: 2 C 1/2 Int.Cal 30.0 Date: 6-1-62

Send	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5	1-2	2-3	3-4
Rec.	0.5	1C	1.0	—	1.5	1.5	—	2.0	C	2.0	—	—
Time												
DC-1	40.4 40.5	11.9 11.8	47.5 47.2	16.5 16.5	8.40 8.35	30.0 30.2	8.40 8.42	5.50 5.55	3.22 3.22	12.0 11.9	4.40 4.45	3.30 3.41
DC-2	40.0 40.0	11.7 11.8	47.0 47.0	17.1 17.1	8.50 8.50	32.0 32.2	8.40 8.40	5.60 5.45	3.38 3.35	12.2 12.2	4.25 4.20	3.18 3.12
Σ	80.4 80.5	23.6 23.6	94.5 94.2	33.6 33.6	16.90 16.85	62.0 62.4	16.80 16.82	11.00 11.00	6.60 6.57	24.2 24.1	8.65 8.65	6.48 6.53
DC-3	40.5 40.5	11.9 11.9	47.0 47.0	16.5 16.5	8.40 8.40	30.2 30.2	8.40 8.40	5.60 5.60	3.30 3.30	11.9 11.9	4.50 4.50	3.50 3.55
Dc-4	40.0 40.0	11.6 11.5	47.5 47.6	17.1 17.1	8.40 8.40	32.0 32.0	8.40 8.40	5.40 5.40	3.30 3.30	12.2 12.2	4.20 4.20	3.02 3.00
Σ	80.5 80.5	23.5 23.4	94.5 94.5	33.6 33.6	16.80 16.80	62.2 62.2	16.80 16.80	11.00 11.00	6.60 6.60	24.1 24.1	8.7 8.7	6.52 6.55
DC-AV	80.45	23.5	94.425	33.6	16.84	62.2	16.805	11.00	6.5925	24.125	8.675	6.52
AC-1	41.1	11.9	48.2	16.9	8.25	29.0	7.6	5.10	3.15	11.5	4.15	3.15
AC-2	41.0	12.0	47.9	16.9	8.25	29.0	7.65	5.15	3.15	11.5	4.15	3.17
Σ	82.1	23.9	96.1	33.8	16.50	58.0	15.25	10.25	6.30	23.0	8.30	6.32
S. P.	-11.1		-19.1			+23.1	+16.9			-43.3		
AC-N		.10			.15	+16.9	←		.07			
						40 D = 20.0 AV						

INDUCED POLARIZATION - RECEIVER NOTES

DC. Noise = 1.5

Project: _____ Line: _____ Int.Cal 50.0 Date: 6-1-82

Send	4-5	1-2	2-3	3-4	4-5		C2/		1-2			
Rec.	-2.5E	2.5	—	3.0	E							
Time												
DC-1	2.16 2.19	9.20 9.21	3.70 3.75	3.25 3.28	2.35 2.30		14.0	32.1	69.0			
DC-2	2.20 2.17	8.85 8.80	3.80 3.72	3.25 3.22	2.25 2.33		14.0	32.1	69.0			
Σ	4.36 4.36	18.05 18.01	7.50 7.47	6.50 6.50	4.60 4.63		28.0	64.2	138.0			
DC-3	2.23 2.26	9.10 9.12	3.80 3.90	3.20 3.05	2.30 2.31		14.0	32.1	69.5			
Dc-4	2.12 2.10	8.95 8.92	3.60 3.60	3.38 3.45	2.33 2.28		14.0	32.1	69.5			
Σ	4.35 4.36	18.05 18.04	7.40 7.50	6.58 6.50	4.63 4.59		28.0	64.2	139.0			
DC-AV	4.375	18.04	7.47	6.52	4.61		28.0	64.2	138.5			
AC-1	2.09	8.46	3.65	3.15	2.21		14.7	34.1	71.0			
AC-2	2.09	8.45	3.65	3.15	2.21		14.5	34.0	71.0			
Σ	4.18	16.85	7.20	6.30	4.42		29.2	68.1	142.0			
S. P.		+9.3										
AC-N	.10				.10							

HEINRICHS GEOEXPLORATION COMPANY

INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Page 1

Project Sierita Line 2-E 1/2 Field date 6/1/62 Data page 1 Comp. date 6/2/62 Comp by [illegible]

(A) Send	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5	1-2	2-3	3-4
(B) Receive	0.5E - 1.0E		1.0E - 1.5E	→		1.5E	2.0E	→	→	2.0E	2.5E	→
(C) n separation	1	2	1	2	3	1	2	3	4	2	3	4
(D) I x 10^{-3}	1405.6	1394.0	1401.5	1388.0	1402.7	1386.0	1379.0	1373.0	1397.0	1383.0	1387.5	1366.5
(E) Vdc (avg)	80.45	23.5	94.43	33.6	16.84	62.2	16.81	11.0	6.59	24.13	8.68	6.52
(F) DCcal	1.000	→	→	→	→	→	→	→	→	→	→	→
(G) Kn x 10^{-3}	1.50	6.0	1.5	6.0	15.0	1.5	6.0	15.0	30.0	6.0	15.0	30.0
(H) ρ dc=ExFxGx10^3/D	85.8	101.1	101.1	145.2	180.0	67.4	73.2	120.1	141.6	104.6	94.0	143.2
(I) Vac Σ	82.1	23.9	91.1	33.8	16.5	58.0	15.25	10.25	6.30	23.0	8.3	6.32
(J) AC noise x 2	0.20	→	0.30	→	→	0.14	→	→	→	0.20	→	→
(K) Vac(corr) = $\sqrt{I^2 - J^2}$												
(L) AC-DC cal.	1.050	→	→	→	→	→	→	→	→	→	→	→
(M) ρ dc/ρac=ExL/K	1.027	1.032	1.088	1.042	1.071	1.125	1.159	1.128	1.099	1.100	1.098	1.083
(N) PFE=(M-1)(10^2)	3	3	9	4	7	13	16	13	10	10	10	8
(O) MCF=(M-1)(10^5)/H	36	32	87	29	39	186	218	106	70	95	104	58

Project ____ Line ____ Field date ____ Data page ____ Comp. date ____ Comp by ____

(A) Send	4-5	1-2	2-3	3-4	4-5		1-2	→	→			
(B) Receive	→	2.5E	- 3.0E	→	→		1E	→	→			
(C) n separation	5	3	4	5	6		0.3Ca	0.75	1.50			
(D) I	1379.5	1361.0	1380.1	1347.5	1376.0		278.7	656.2	1380.4			
(E) Vdc (avg)	4.38	18.04	7.47	6.52	4.61		28.0	64.2	139.0			
(F) DCcal	1.000	→	→	→	→		.996	1.021	.997	use	1.000	
(G) Kn x 10^{-3}	52.5	15	30	52.5	84							
(H) ρ dc=ExFxGx10^3/D	166.7	199.0	162.5	254.0	281.3							
(I) Vac Σ	4.18	16.85	7.20	6.30	4.42		29.2	68.1	142.0			
(J) AC noise x 2	→	0.20	→	→	→		→	→	→			
(K) Vac (corr) = $\sqrt{I^2 - J^2}$												
(L) AC-DC cal.	1.050	→	→	→	→		1.041	1.060	1.021	1.048	use	1.05
(M) ρdc/ρac =ExL/K	1.099	1.124	1.088	1.085	1.095							
(N) PFE=(M-1)(10^2)	10	12	9	9	10							
(O) MCF=(M-1)(10^5)/H	59	62	54	33	33							

50 34 71

10/9/62

C.S.L.

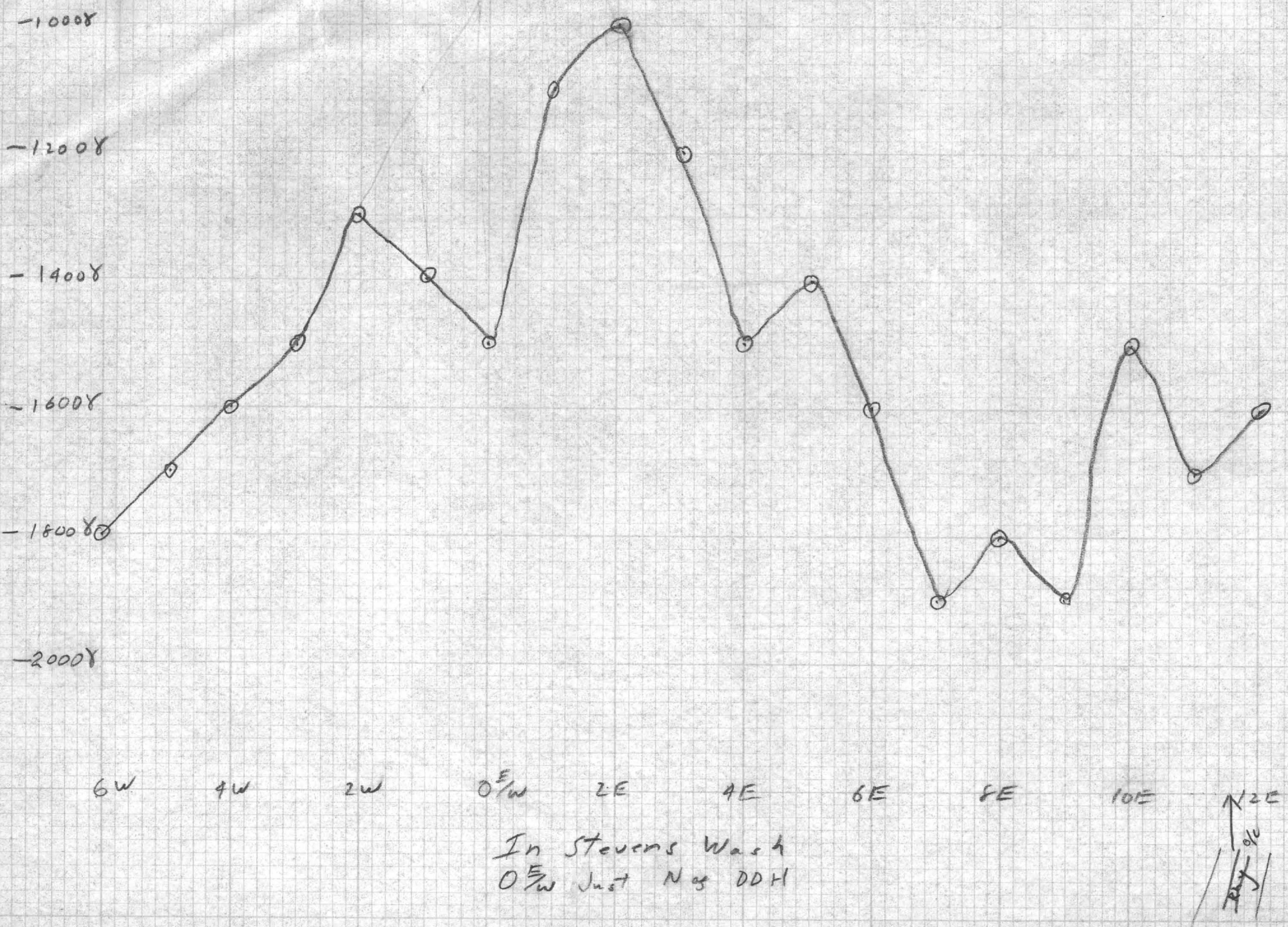
W. Sicyrita

E. from D.D.H. in Stevens Wash

S+A	Range	Sign	Read	γ
0+00E	X1000	—	1.5	-1500
1+00E	"	—	1.1	-1100
2+00E	"	—	1.0	-1000
3+00E	"	—	1.2	-1200
4+00E	"	—	1.5	-1500
5+00E	"	—	1.4	-1400
6+00E	"	—	1.6	-1600
7+00E	"	—	1.9	-1900
8+00E	"	—	1.8	-1800
9+00E	"	—	1.9	-1900
10+00E	"	—	1.5	-1500
11+00E	"	—	1.7	-1700
11+60E	"	—		80° W dip
12+00E	"	—	1.6	-1600
1+00E	"	—	1.1	-1100
0+00E	"	—	1.5	-1500
1+00W	"	—	1.4	-1400
2+00W	"	—	1.3	-1300
3+00W	"	—	1.5	-1500
4+00W	"	—	1.6	-1600
5+00W	"	—	1.7	-1700
6+00W	"	—	1.8	-1800

ORIGINAL COPR. 19 J. C. PARKER
LEFAX, PHILADELPHIA 7, PA. MADE IN U.S.A.
TR.MK. REG. US. PAT. OFF.

W. Sierrita 10/4/62



In Stevens Wash
0E/W Just N of DDH

Line # 6 1

16/Aug/
Seward
Marlatt

Sta	Scale	S.D	
60w*	+1	50	515
59w	"	50	515
58w	"	50	515
57w	"	52	536
56	"	54	556
55	"	51	525
54w	"	52	536
53	"	52	536
52	"	53	546
51	"	50	515
50*	"	56	577
49	"	53	546
48	"	54	556
47	"	55	567
46	"	50	515
45	"	52	536
44	"	51	525
43	"	50	515
42	"	49	505
41	"	49	505
40	"	45	464
39	"	50	515
38	"	48	494
37	"	50	515
36	"	47	484
35	"	49	505
34	"	50	515
33	"	50	515
32	"	49	505
31	"	53	546
30	"	55	567

West Sierrita

ORIGINAL COPR. 1910 J. C. PARKER
LEFAX, PHILADELPHIA 7. PA., MADE IN U.S.A.
TR. MK. REG. U.S. PAT. OFF

ORIGINAL COPR. 1910 J. C. PARKER

TR. MK. REG. U.S. PAT. OFF

	Scale	2 S.D.		
29w	1	55	567	
28	"	54	556	
27	"	58	597	
26	"	61	628	
25	"	59	607	
24	"	62	639	
23	"	67	690	
22	"	72	742	gram. in crk outcrop
21	"	69	711	
20	"	74	762	
19	"	86	886	
18	"	88	906	edge DD site
17	"	99	1020	
16	"	76	783	
15	"	64	659	
14	"	63	649	
13	"	64	659	
12	"	43	443	
11	"	38	391	
10	"	37	381	
9	"	36	371	
8	"	37	381	
7	"	35	361	
6	"	30	309	
5	"	35	361	
4	"	35	361	
3	"	36	371	on pk schist
2	"	36	371	
1	"	39	402	
0	"	37	381	

LEFAX, PHILADELPHIA 7. PA., MADE IN U.S.A.

East side Line 6
8-17-62

Sta	Scale	Read	
60E	+1	55	567
59E	+1	53	546 Made prospect dump
58	+1	49	505
57	+1	49	505
56	+1	54	556
55	+1	47	484
54	+1	50	515
53	+1	44	453
52	+1	55	567
51	+1	51	525
50	+1	60	618
49	+1	39	402
48	+1	52	536
47	+1	50	515
46	+1	51	525
45	+1	52	536
44	+1	44	453
43	+1	56	577
42	+1	59	607
41	+1	55	567
40	+1	70	721
39	+1	55	567 Granite
38	+1	52	536 limestone
37	+1	51	525
36	+1	52	536
35	+1	51	525 Schist
34	+1	49	505 "
33	+1	49	505 "
32	+1	47	484 "
31	+1	51	525

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Sta	Scale	Read	
30	+1	46	474 dec.
29	+1	59	607
28	+1	51	525
27	+1	54	556
26	+1	57	587
25	+1	57	587
24	+1	55	567
23	+1	55	567
22	+1	53	546
21	+1	49	505
20	+1	49	505
19	+1	50	515
18	+1	52	536
17	+1	51	525
16	+1	49	505
15	+1	44	453
14	+1	44	453 Shist solide
13	+1	50	515
12	+1	50	515
11	+1	38	391
10	+1	46	474
9	+1	40	412
8	+1	44	453
7	+1	47	484
6	+1	40	412
5	+1	50	515
4	+1	44	453
3	+1	44	453
2	+1	43	443
1	+1	42	433

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Sta Scale Redd
0 +1 34 350

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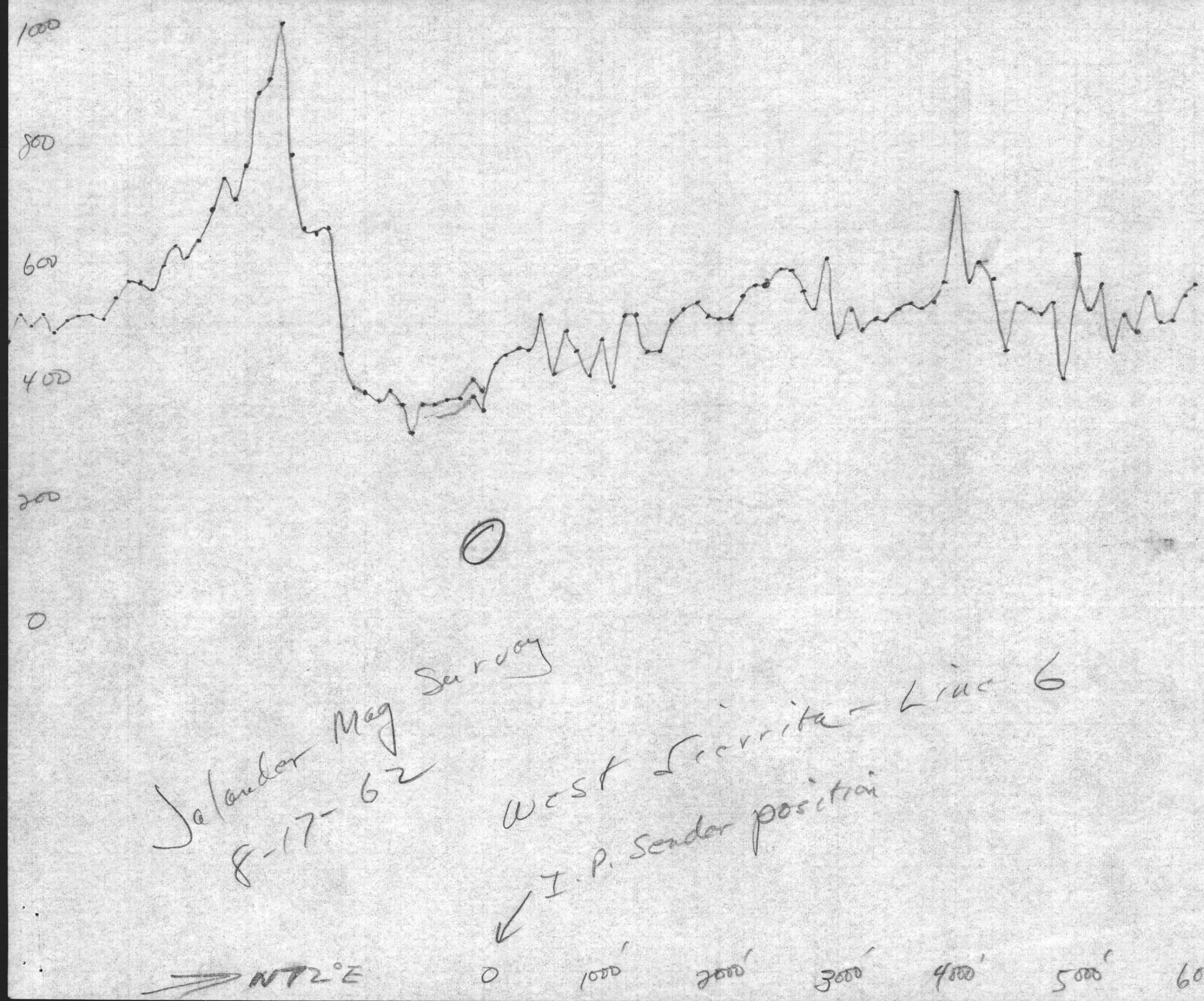
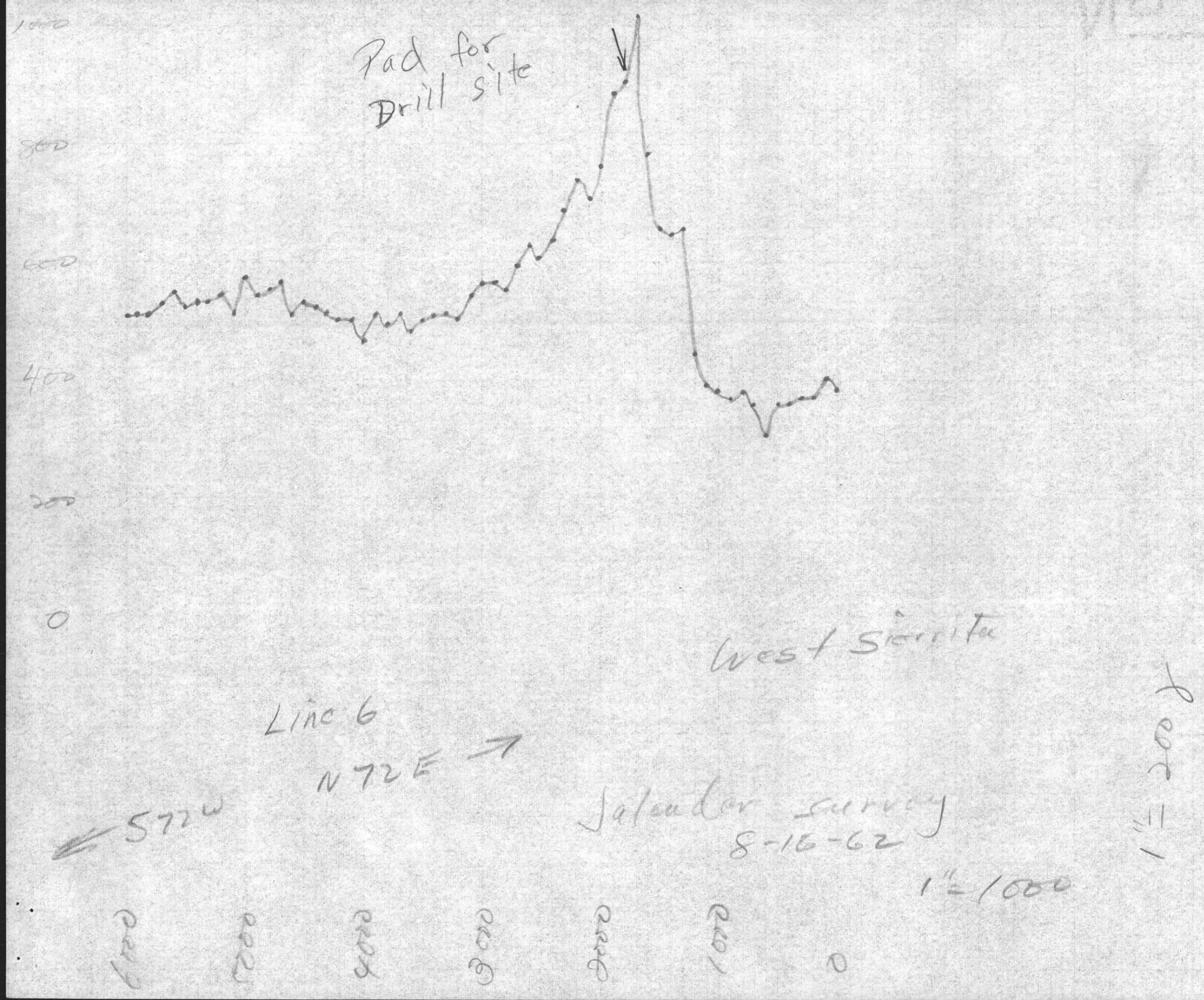
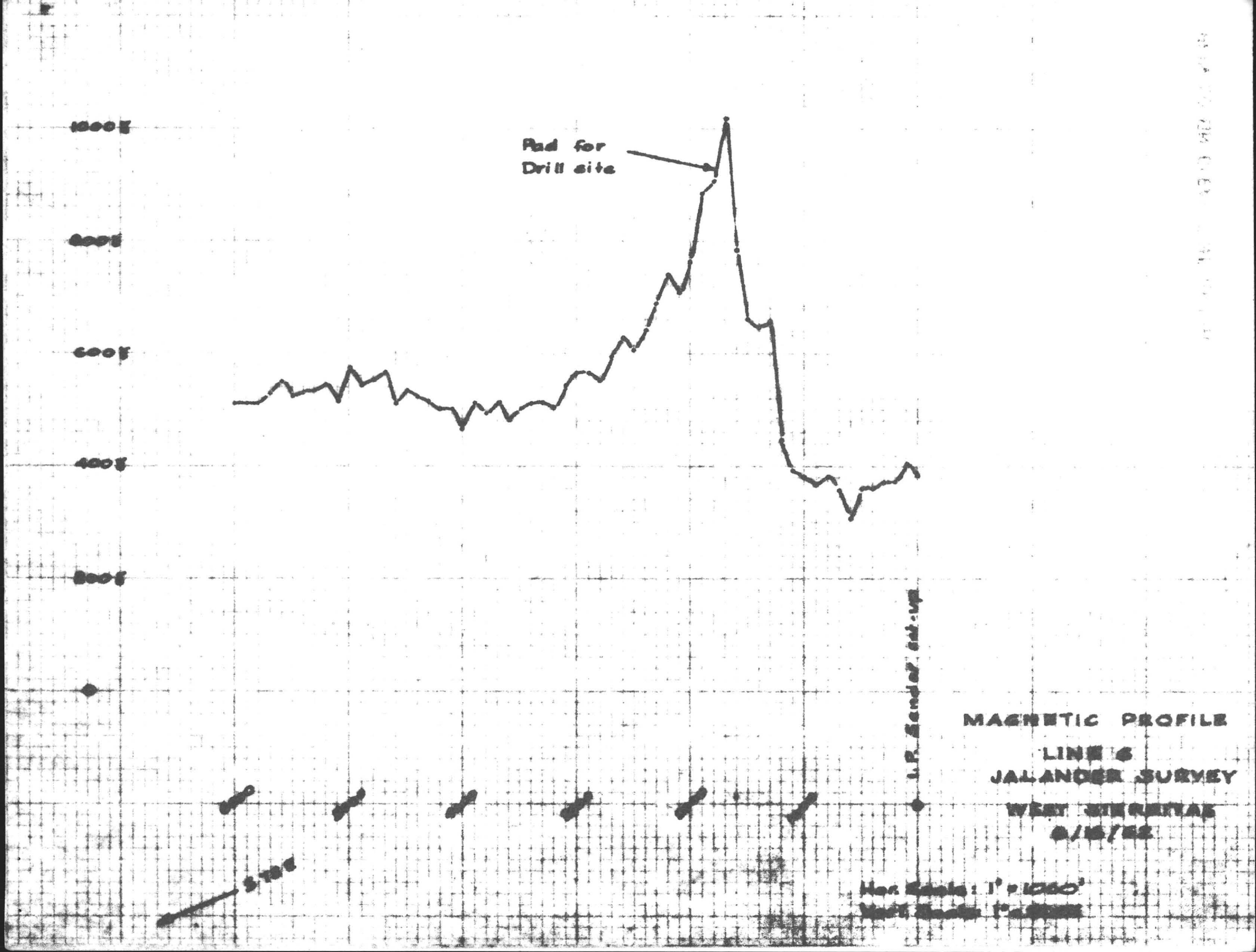
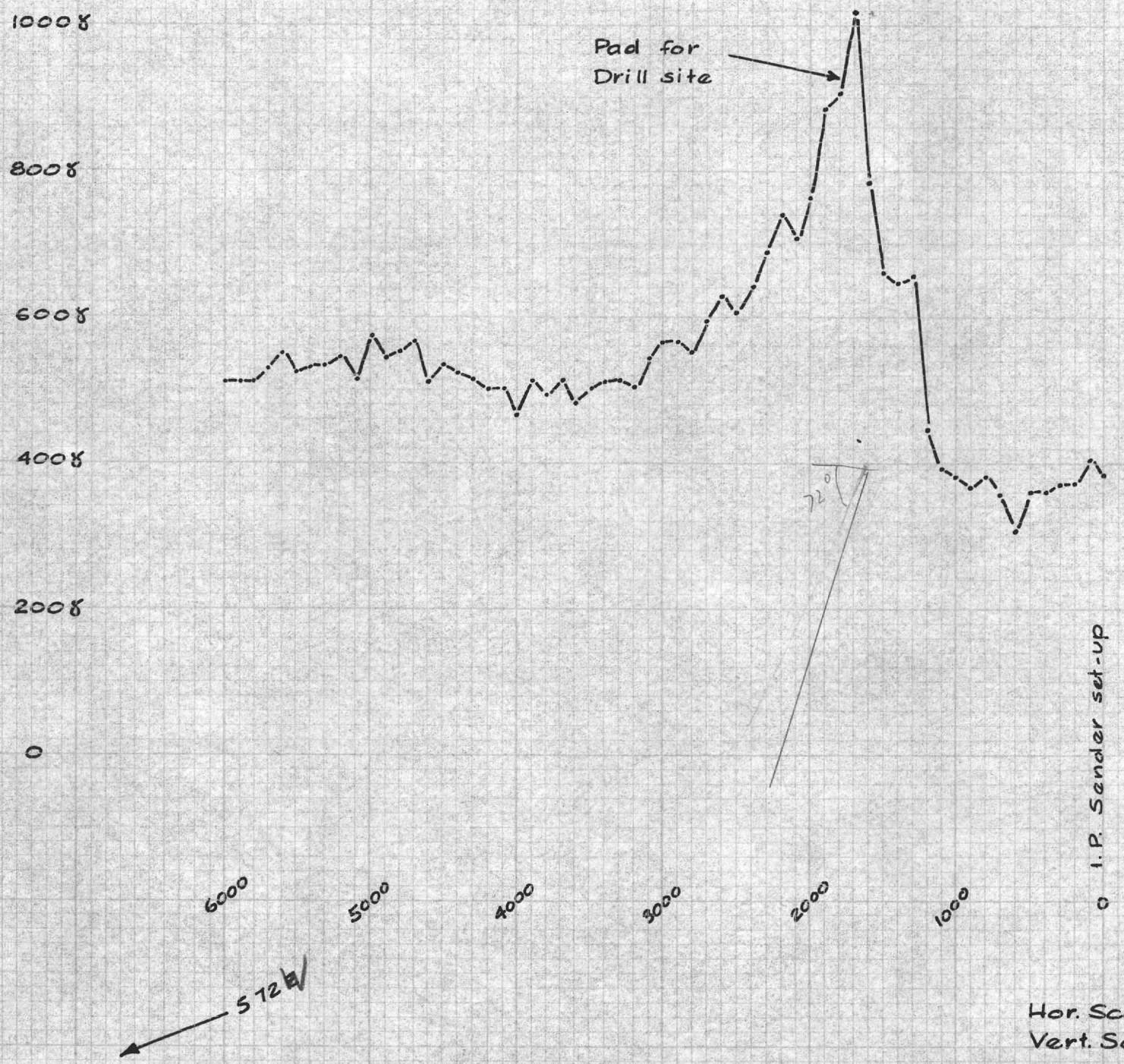

1000
800
600
400
200
0
Jalander Mag Survey
8-17-62
West Sierrita - Line 6
I.P. Sender position
N72°E
0
1000'
2000'
3000'
4000'
5000'
6000'E


1000
800
600
400
200
0
Pad for
Drill site
West Section
Line 6
N 72 E
S 72 W
Solander Survey
8-16-62
1" = 1000'
2400
2200
2000
1800
1600
1400
1200
1000
800
600
400
200
0


Pad for
Drill site
MAGNETIC PROFILE
LINE 6
JALANDER SURVEY
WEST SIERRITAS
6/15/52



MAGNETIC PROFILE

LINE 6
JALANDER SURVEY

WEST SIERRITAS
8/16/62

Hor. Scale: 1" = 1000'
Vert. Scale: 1" = 200γ

Parker Gay calculations by Chris Ludwig Aug 1982

for Mag profile Line 6 West Sierrita Pr.

TABLE 6. PROCEDURE SHEET FOR

INTERPRETATION OF PROFILE ACROSS MAGNETIC ANOMALY

ARISING FROM ASSUMED TABULAR-SHAPED BODY

Name of Anomaly or Ore Deposit: W. Sierrita

Profile Number: Line 6 - Sec. 1

Description, location, etc.: _____

RESULTS OF INTERPRETATION

Depth (subsurface) 333 ft. (no. 12)

Dip, δ = 72°W (no. 13 or 19)

Thickness, t = See 14 (no. 14 or 21)

Coordinates of apex: x = Line 6

y = 1600W

STEP-BY-STEP TABULATION

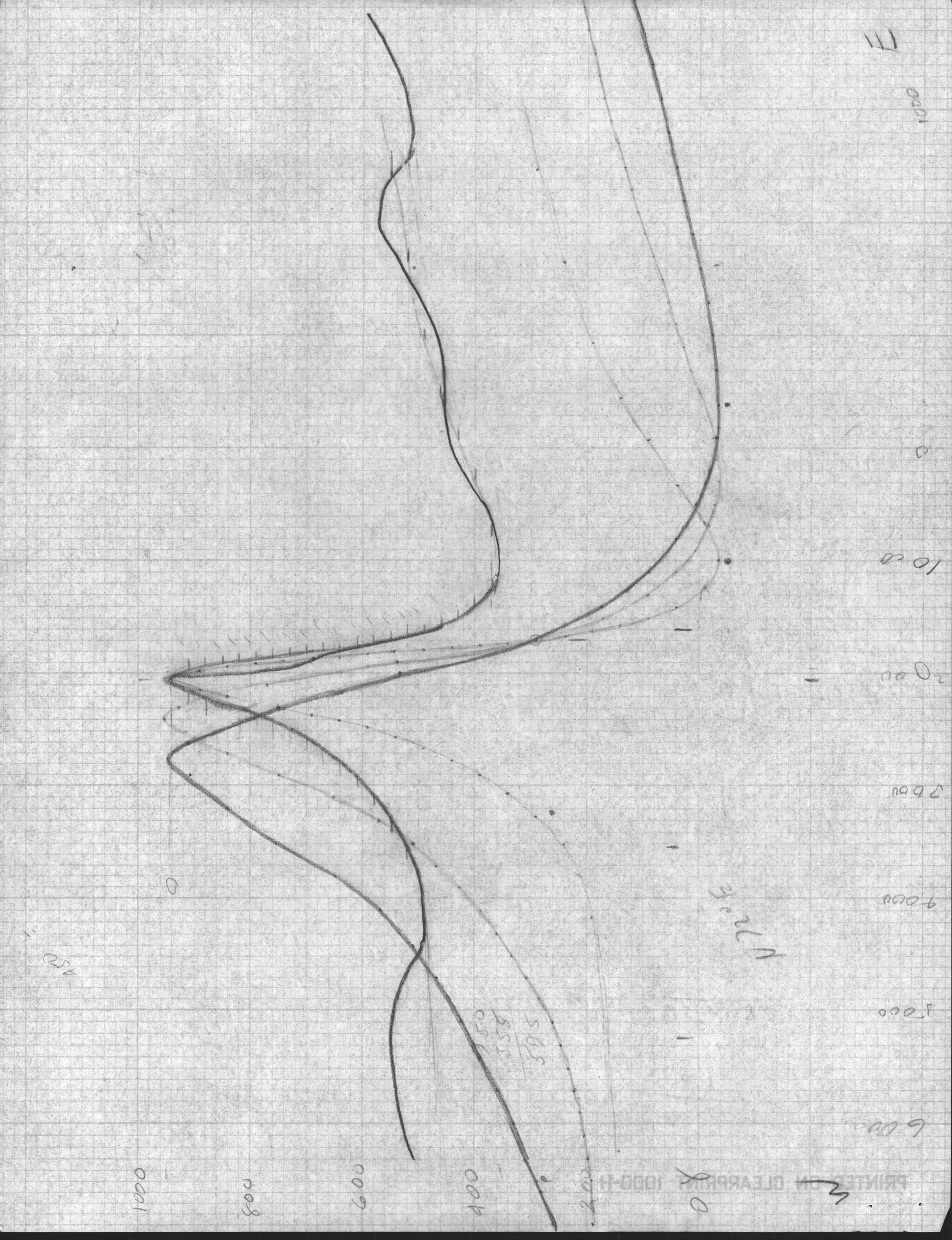
Quantity	Reference
1. T = 52,400 51,300 gammas	Regional maps such as those of U.S. Coast and Geodetic Survey
2. I_o = 62°N 75°N	
3. α = 148° 150°	Magnetic contour map
4. I_o' = +73°N +74°N	Chart 1 (with nos. 2 and 3)
5. T_o'/T_o = 0.920	Chart 2 (with nos. 2 and 3)
6. T_o' = 48,120 gammas	Multiply: no. 5 times no. 1
7. A = 595 - 600 gammas	Magnetic profile
8. θ = -35°	Superposition of magnetic profile over standard curves (Charts 3 - 6)
9. y'_{apex} = ~111 ft E of apex on ~1950W	
10. z = 333 ft (below level of observations)	
11. Ht. of observations above ground level: 0	
12. Depth to apex from surface of ground: 333 ft	Subtract: no. 10 - no. 11
13. δ = 108°N	Table 1
14. t = 14' @ 50% mag 28' @ 25% mag 69' @ 10% mag	Table 1

DEMAGNETIZATION CORRECTIONS

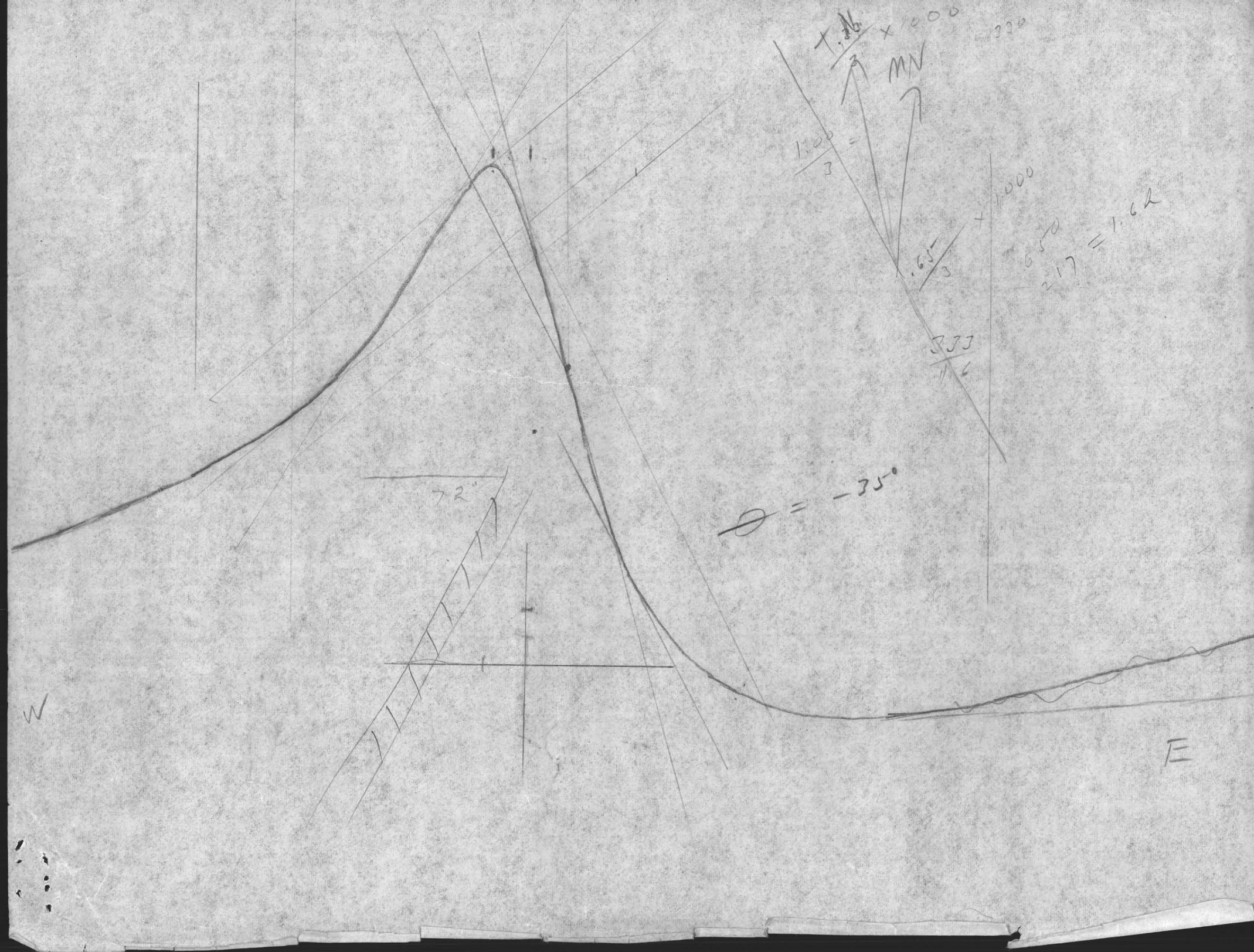
15. Estimated k_{true} _____	
16. K = _____	Chart 7 (with no. 15)
17. β'' = _____	Table 2
18. β' = _____	Chart 8 (with nos. 16 and 17)
19. δ_{corr} = _____	$\delta = I_o' - \beta'$ (no. 4 - no. 18)
20. C_t = _____	Chart 9 (with nos. 17 and 16)
21. t_{corr} = _____	Multiply: no. 14 by no. 20

X - X - X - X - X - X - X - X

REMARKS



E
1000
0
1000
2000
3000
4000
5000
6000
1000
800
600
400
200
0


MN
W
E

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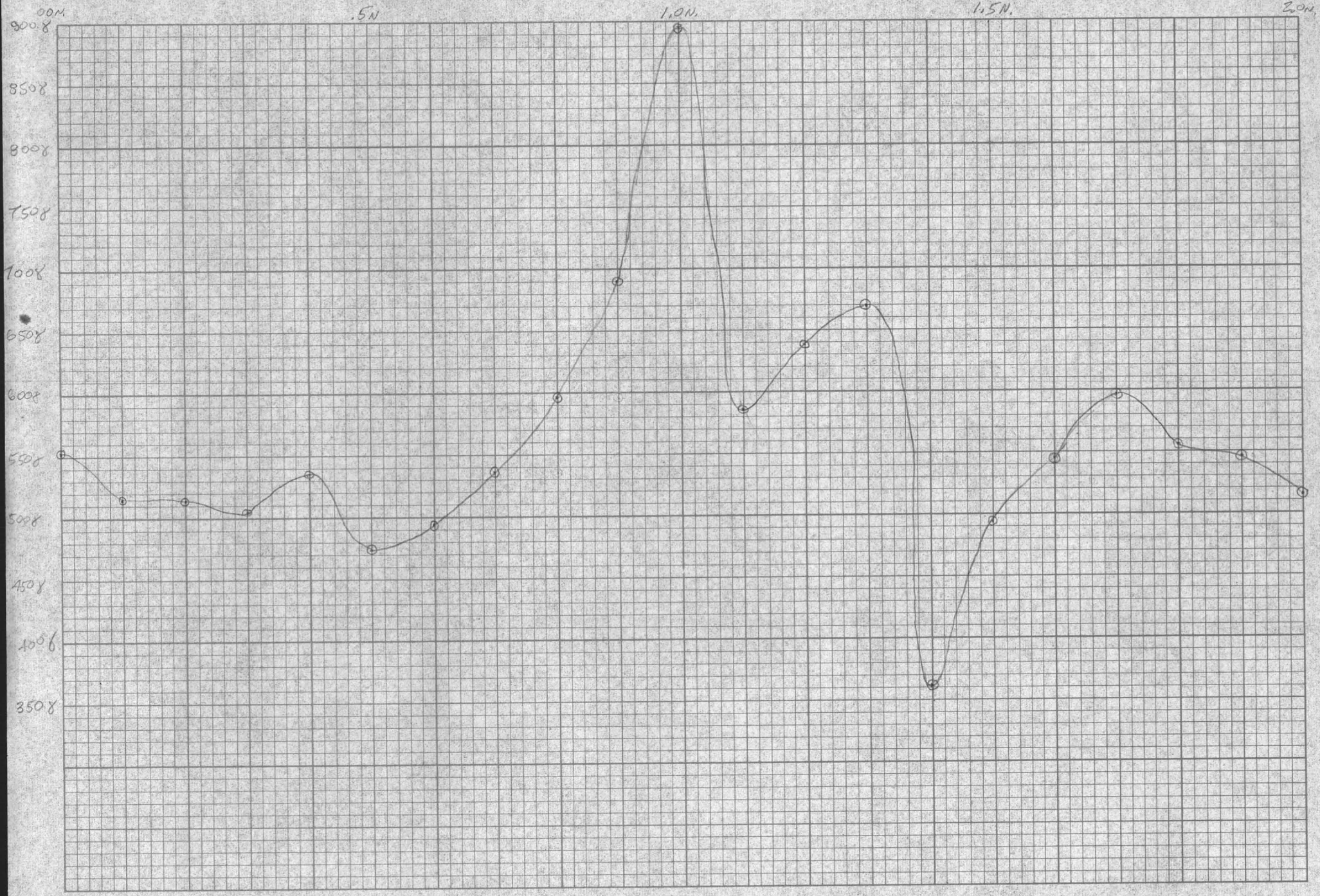
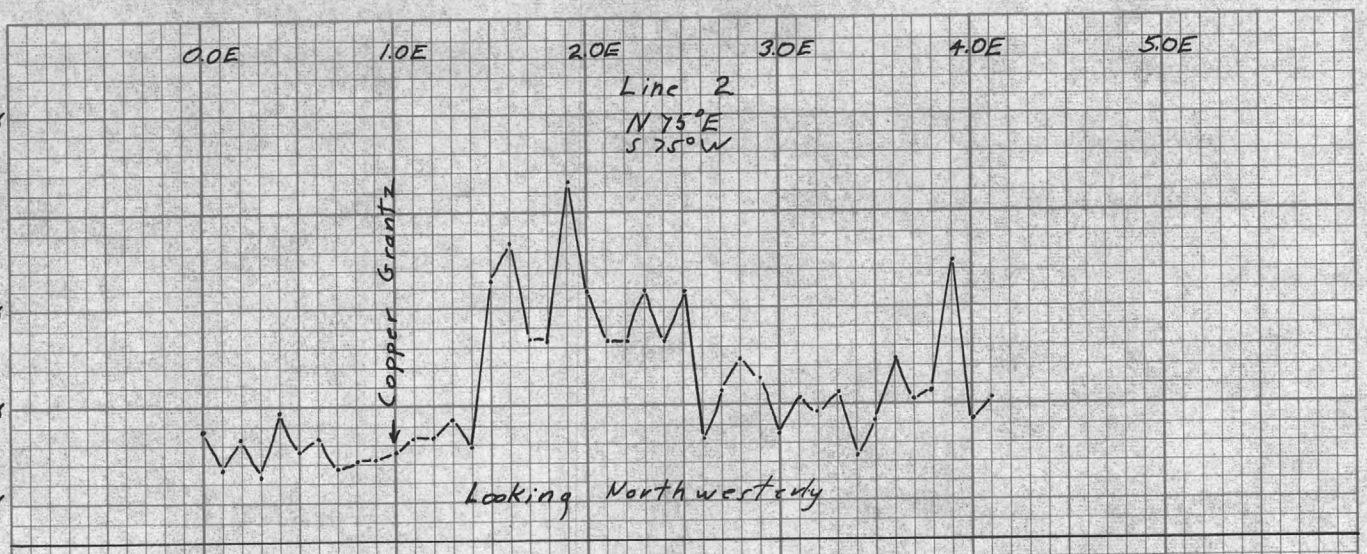
10 X 10 PER INCH

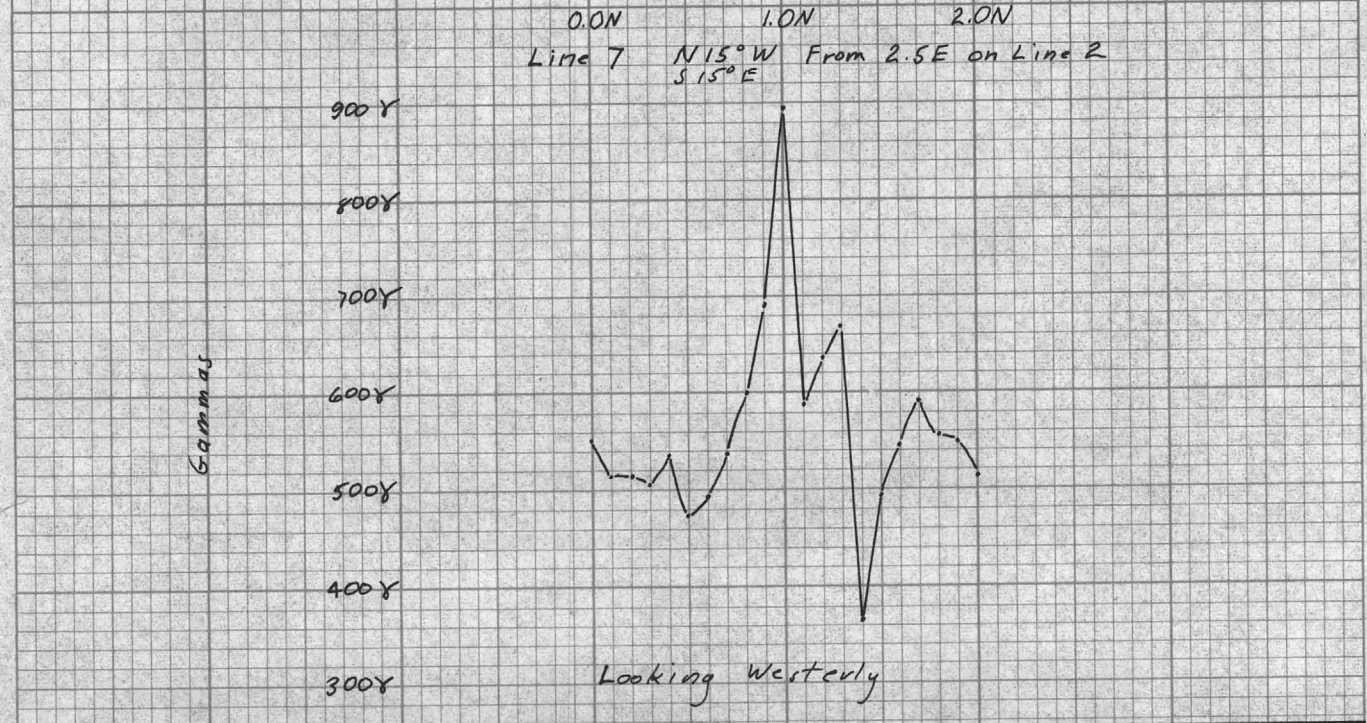
EUGENE DIETZGEN CO.
MADE IN U. S. A.

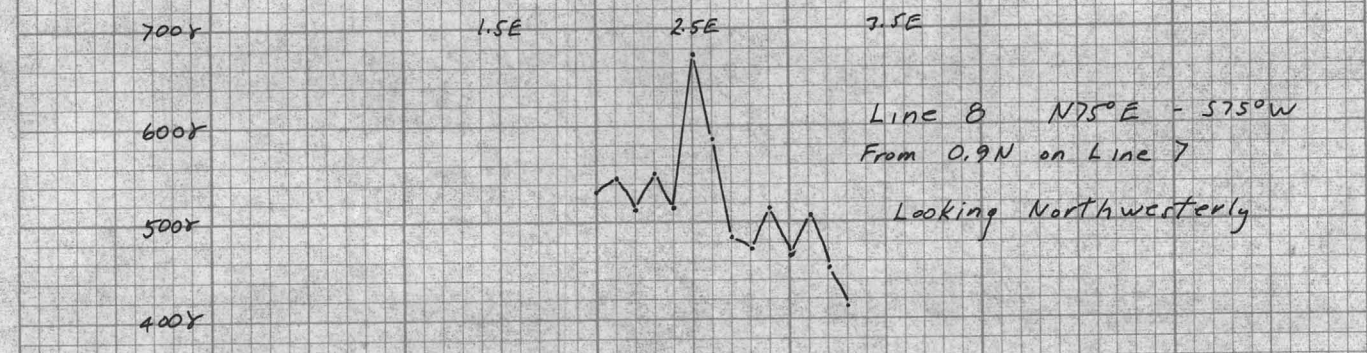
W. SIERRITAS JALANDER LINE 3 22 AUG 62



1"=100ft 1" = 200'







Jalander Vertical Intensity Magnetic Profiles

West Sierrita Project
Pima County, Arizona

Aug. 24, 1962

By
Heinrichs Geoexploration Co.

for
Inspiration Con. Copper Co.

Hor. Scale : 1" = 1000'
Ver. Scale : 1" = 200 γ

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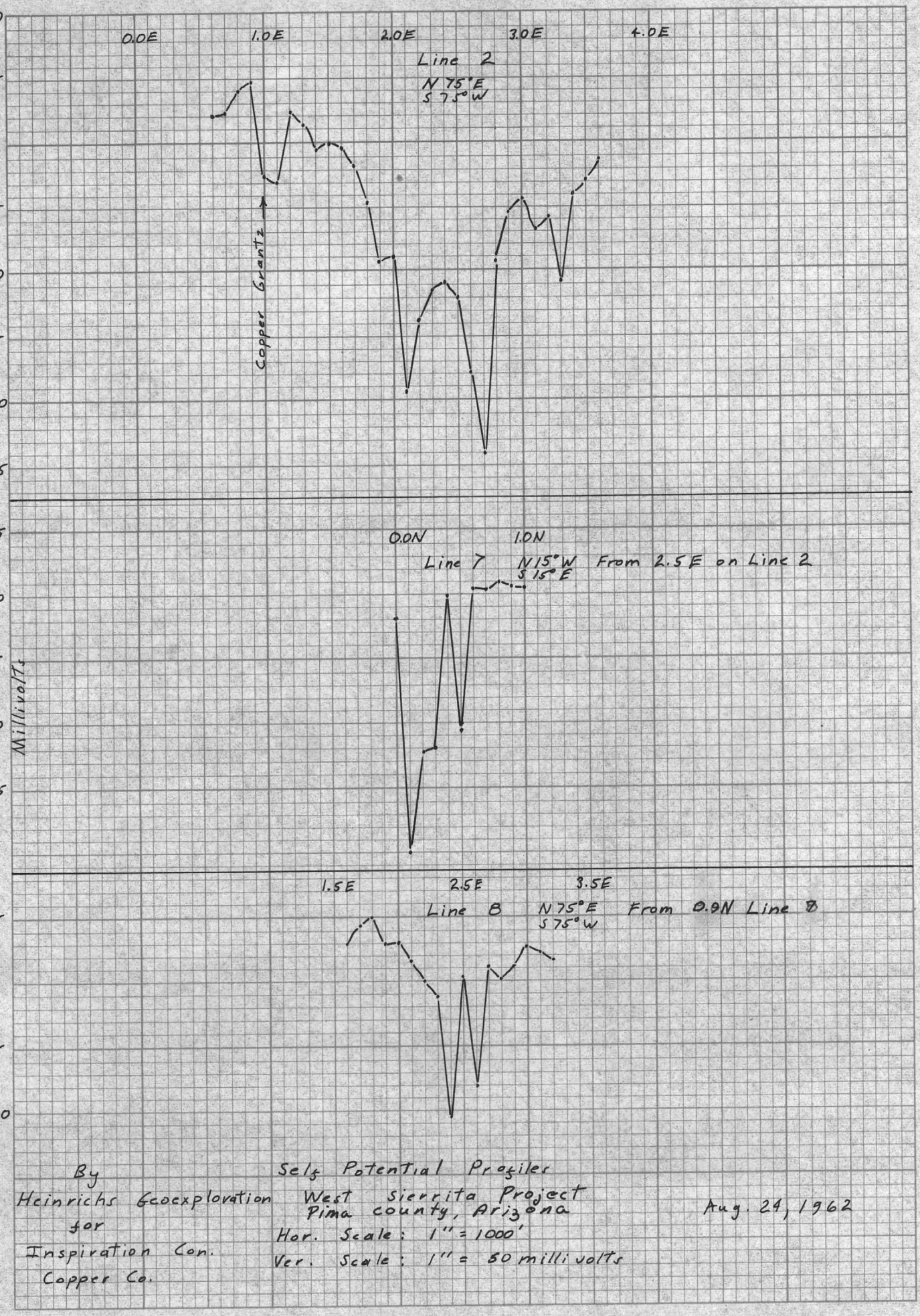

By
Heinrichs Geoexploration
for
Inspiration Con.
Copper Co.

Self Potential Profiles
West Sierrita Project
Pima county, Arizona

Hor. Scale: 1" = 1000'
Ver. Scale: 1" = 50 millivolts

Aug. 24, 1962

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West Sierrita

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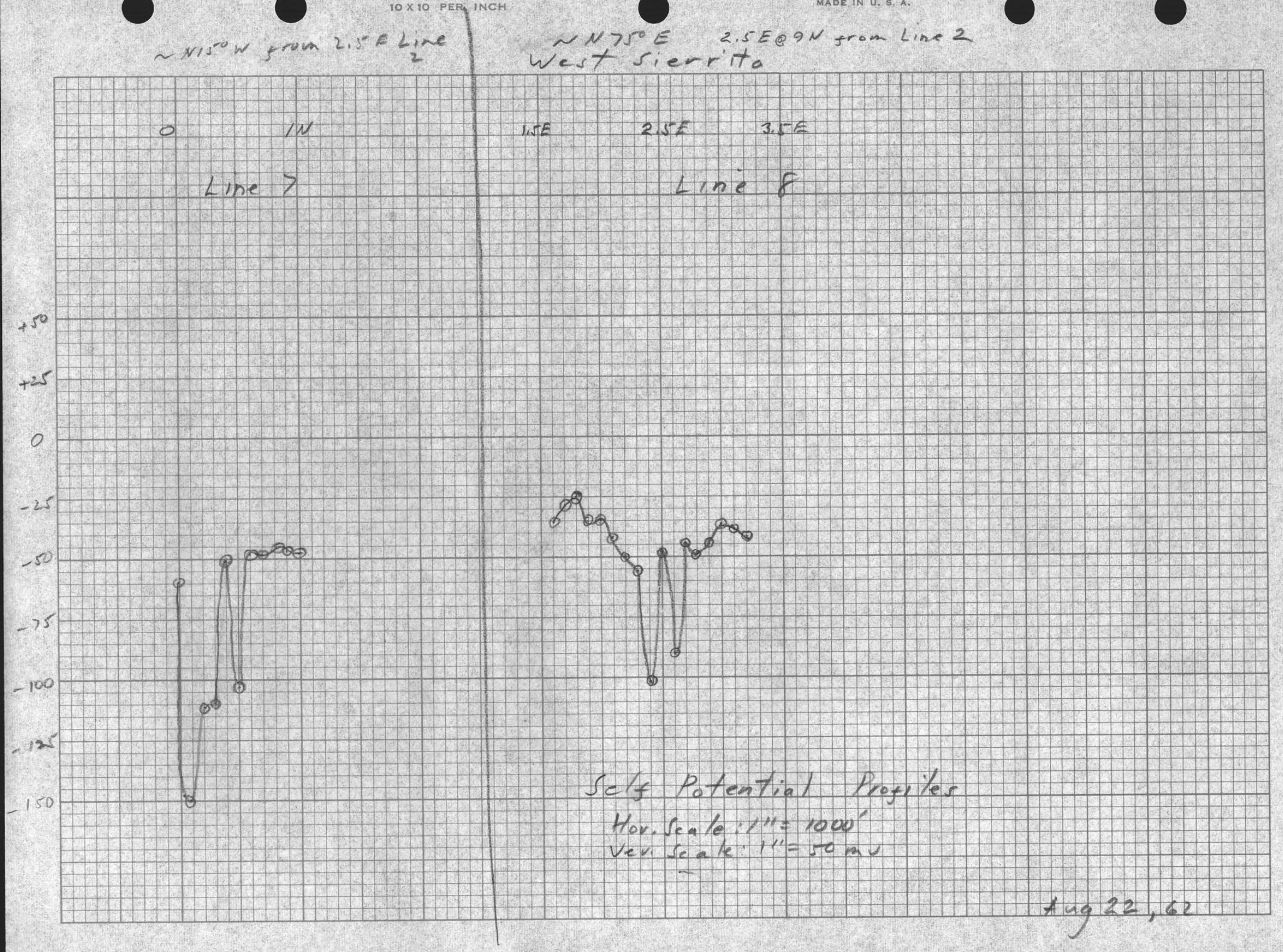
~N15°W from 2.5E Line 2

~N75°E 2.5E@9N from Line 2
West Sierrita



Self Potential Profiles
Hor. Scale: 1" = 1000'
Ver. Scale: 1" = 50 mv

Aug 22, 62

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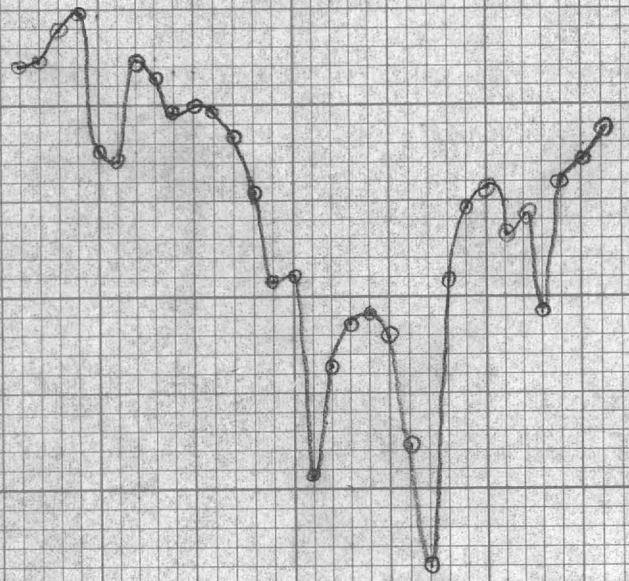
Line #2 W. Sierrita ~ N 75° E

0E 1.0 2.0 3.0 4.0E

Copper Gravity

+50
+25
0
-25
-50
-75
-100
-125



Self Potential Profiles

Hor. Scale : 1" = 1000'
Ver. Scale : 1" = 50 mv

Aug. 22, 62

Line 2 S.P. W. Sierrita Aug 22 JC

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STATION Base	Field	Base	READINGS Field	Time
1.5E	1.5E	0	+4.9	11:15
"	1.6E		+2.3	
"	1.7E		-5.2	
"	1.8E		-22.6	11:22
"	1.9E		-53.6	
"	2.0E		-43.6	
"	2.1E		-95.0	
"	2.2E		-67.1	11:29
"	2.3E		-57.8	
"	2.4E		-53.2	
"	2.5E		-37.4	11:36
1.5E	1.5E		+0.3	
1.5E	1.5E		+2.0	12:00
"	1.4E		+0.3	
"	1.3E		+6.8	
"	1.2E		+13.2	
"	1.1E		-14.4	12:06
"	1.0E		-12.1	
"	.9E		+24.8	
"	.8E		+20.2	
"	.7E		+12.1	
"	.6E		+10.8	
"	.5E			end range one
1.5E	1.5E		+2.3	12:30

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LEFAX PHILADELPHIA 7, PA. MADE IN U.S.A.

Aug 22 62

Stations		Readings		time	
Base	Field	Base	Field		
2.0	2.0	0	-0.7	1:00	
"	2.025		-27.8		
"	2.050		-59.7		
"	2.075		-65.8	1:07	
"	2.100		-30.4		
"	2.125		-55.6	1:10	
"	2.150		-49.0		
"	2.175		-44.0		
"	2.200		-96.7		
"	2.225		-57.2		
"	2.250		-84.9		
"	2.275		-39.6		
"	2.300		-66.0		
"	2.325		-55.0		
"	2.350		-77.0		
"	2.375		-38.8		
"	2.400		-82.3	=	2.5E
"	2.425		-4.7		@ top of hill
"	2.400		-34.8	=	"
"	2.350		-93.3		"
"	2.300		-22.9		
"	2.250		-67.7		
"	2.200		-32.6		
"	2.150		-46.7		
"	2.100		-49.8		
"	2.050		-28.4		
"	2.000		-1.2	1:53	

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LEFAX PHILADELPHIA 7, PA DE IN U.S.A.

N10°W
50°E

Adit 50'E
Sta 9N

2550 E Dowl					27 Aug 62
Base	F	B	F	T	
= 2.5?					
2.4 E	2.4 E	0	+0.3	2:11	
"	2.5E		-27.9		
"	2.6E		-58.7	2:16	
"	2.7E		+14.9		
"	2.8E		+33.8		
"	2.9E		+38.3		
"	3.0E		+27.2		
"	3.1E		+32.3		
"	3.2E		+6.3		
"	3.3E		+40.6		
"	3.4E		+46.0		
"	3.5E		+54.4	2:32	
2.4E	2.4E		-2.0	2:43	

N 15° W N N

2.4E = 0.0 N-S

0.0N	0.0	0	-2.0	2:48
0.0 N	0.1 N		-90.0	
"	0.2N		-54.0	
	0.3N		-51.2	
	0.4N		+10.3	
	0.5N		-44.0	
	0.6N		+12.1	
	0.7N		+12.0	
	0.8N		+15.7	3:05
	0.9N		+13.7	
	1.0N		+12.5	3:09
	0.0N		-2.4	

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LEFAX PHILADELPHIA 7, PA. E IN U.S.A.

12 Aug 62 J

B	F	B	F	T
9 N 2.4E	2.4E	0	0.0	3;50
2.4E	2.5E		-43.3	4;00
"	2.6E		+3.9	
"	2.7E		+1.2	
"	2.8E		+4.7	
"	2.9E		+12.7	
"	3.0E		+10.0	4;08
"	3.1E		+6.5	
2.4	2.4E		+0.6	4;15
"	2.3E		-54.3	
	2.2E		-7.7	4;22
"	2.1E		-2.9	
	2.0E		+6.5	
"	1.9E		+13.8	
"	1.8E		+13.8	4;26
"	1.7E		+22.1	
"	1.6E		+21.3	
"	1.5E		+13.0	
	2.4		+0.7	4;35

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I.P. LINE 2 SPRI CENTER

BASE LINE 1	8	READING 1100 HRS		8	
O E.W	536	+52	3100	433	+42
100 W	607	+59	3200	567	+55
200 W	484	+47	3300	567	+55
300 W	402	+39	3400	484	+47
400 W	505	+49	3500W	494	+48
500 W	515	+50	3600	546	+53
600 W	453	+44	3700	587	+57
700W	443	+43	3800	515	+50
800 W	494	+48	3900	494	+48
900 W	515	+50	4000W	484	+47
1000 W	474	+46	4100W.	464	+45
1100W	443	+43	4200W.	494	+48
1200	556	+54	4300W.	515	+50
1300	422	+41	4400W	494	+48
1400	505	+49	4500W	536	+52
1500W	494	+48	4600W.	505	+49
1600	464	+45	4700W	453	+44
1700	474	+46	4800W	515	+50
1800	443	+43	4900W	474	+46
1900	433	+42	5000W	484	+47
2000W	546	+53			
2100	536	+52			
2200	453	+44			
2300	494	+48			
2400	515	+50			
2500W	536	+52			
2600	474	+46			
2700	453	+44			
2800	556	+54			
2900	494	+48			
3000W	464	+45			

END JAL LINE 1

BASE +47
@ 1700 HRS
4848
D.F.G.

West Sierrita
Jalander survey
D. Grage 8/22/62

I.P. LINE 2 SPR.1 CENTER

22 AUG 62
W. S. ERRITAS
PAGE 2
SCALE 1

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LINE 2 BASE

1330 HRS.

POSITION	γ	READING
00 E.W.	474	+46
100 E	433	+42
200 E	464	+45
300 E	422	+41
400 E	494	+48
500 E	453	+44
600	464	+45
700	433	+42
800	443	+43
900	443	+43
1000 E	453	+44
1100	464	+45
1200	464	+45
1300	484	+47
1400	453	+44
1500 E	628	+61
1600	670	+65
1700	567	+55
1800	567	+55
1900	731	+71
2000 E	618	+60
2100	567	+55
2200	567	+55
2300	618	+60
2400	567	+55
2500 E	618	+60
2600	464	+45
2700	515	+50
2800	546	+53
2900	525	+51
3000 E	474	+46
3100	505	+49

POS.	γ	READ
3200	494	+48
3300	515	+50
3400	443	+43
3500 E	484	+47
3600	546	+53
3700	505	+49
3800	515	+50
3900	649	+63
4000 E	484	+47
4100 E	505	+49

END JAL LINE 2

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BASE LINE 3

2550' E. OF LINE 1 LINE 2 BASE

Pos.	8 READ	
000 N.S.	567	+55 (1520 HRS)
100 N.	515	+50
200 N.	515	+50
300 N.	505	+49
400 N.	536	+52
500 N.	474	+46
600	494	+48
700	536	+52
800	597	+58
900	690	+67
1000 N.	896	+87
1100	587	+57
1200	639	+62
1300	670	+65
1400	361	+35
1500 N	494	+48
1600	546	+53
1700	597	+58
1800	556	+54
1900	546	+53
2000 N.	515	+50
00 N.S.	536	+52 (1605 HRS)

END JAL. LINE 3

900' N. OF LINE 3 BASE. (LINE 4)

00 E.W.	670	+65	(1620 HRS)
100 E.	587	+57	
200 E.	484	+47	
300 E.	474	+46	
400 E	515	+50	
500 E.	464	+45	
600 E.	505	+49	
700 E.	453	+44	
800 E.	412	+40	
00 E.W.	618	+66	(1630 HRS)

OVER

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PAGE 3 CONT.

JALANPER LINE 4 CONT.

SCALE 1

POS.	Y	HEAD.
00 EW	680	+66
100 W	515	+50
200 W	556	+54
300 W	515	+50
400 W	546	+53
500 W	536	+52

@ (1635) HOURS

END JAL LINE 4

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9N
255

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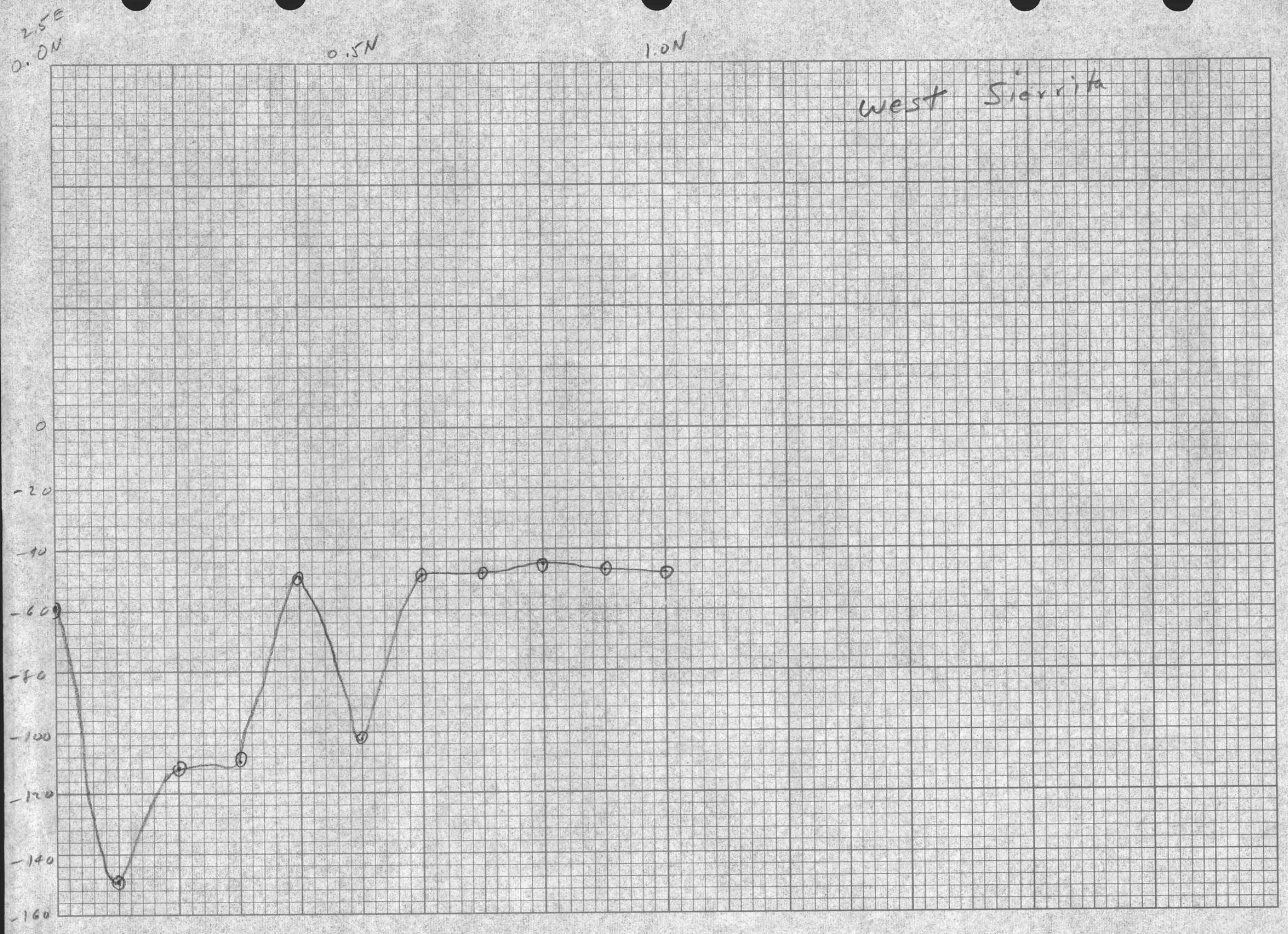

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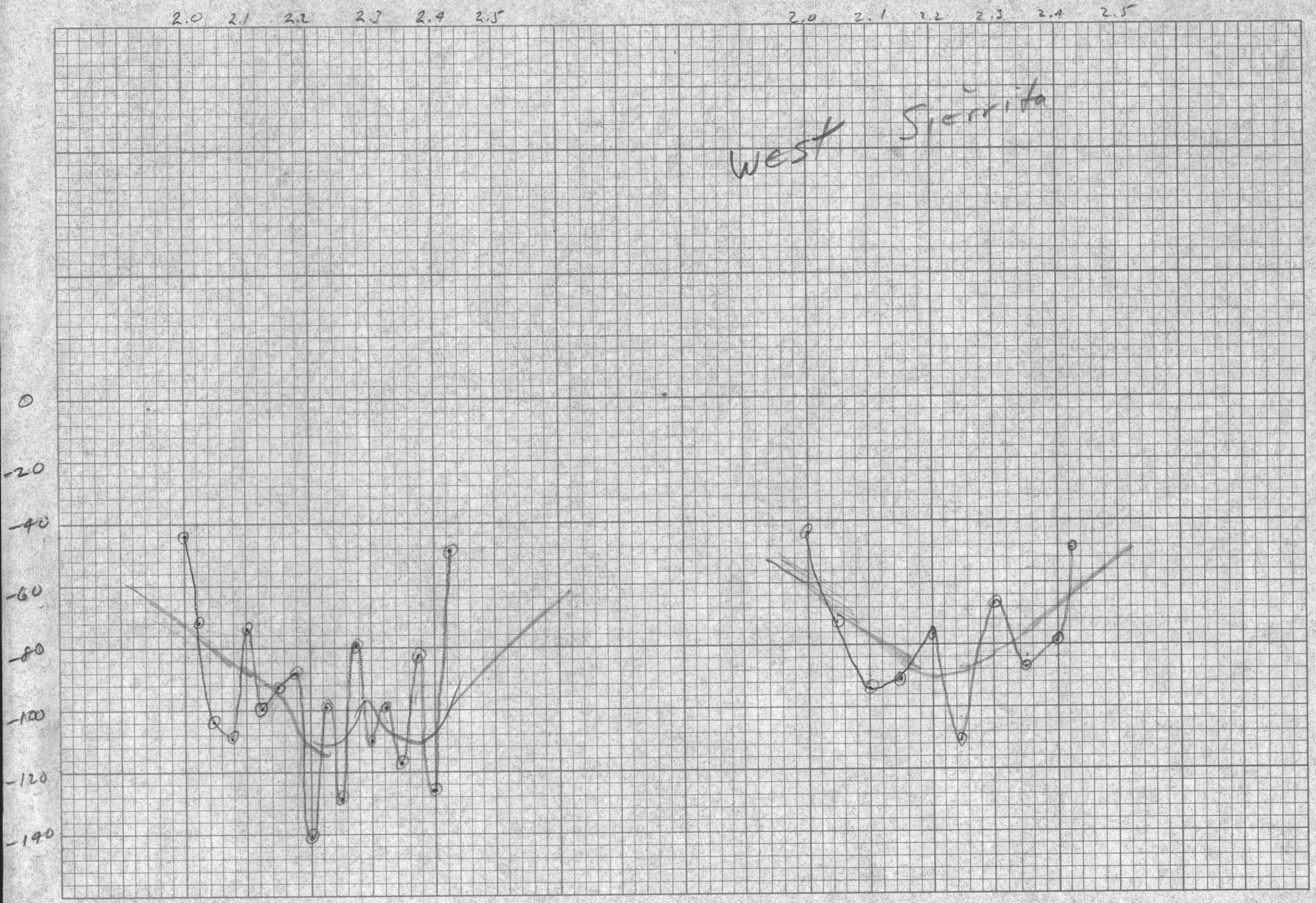

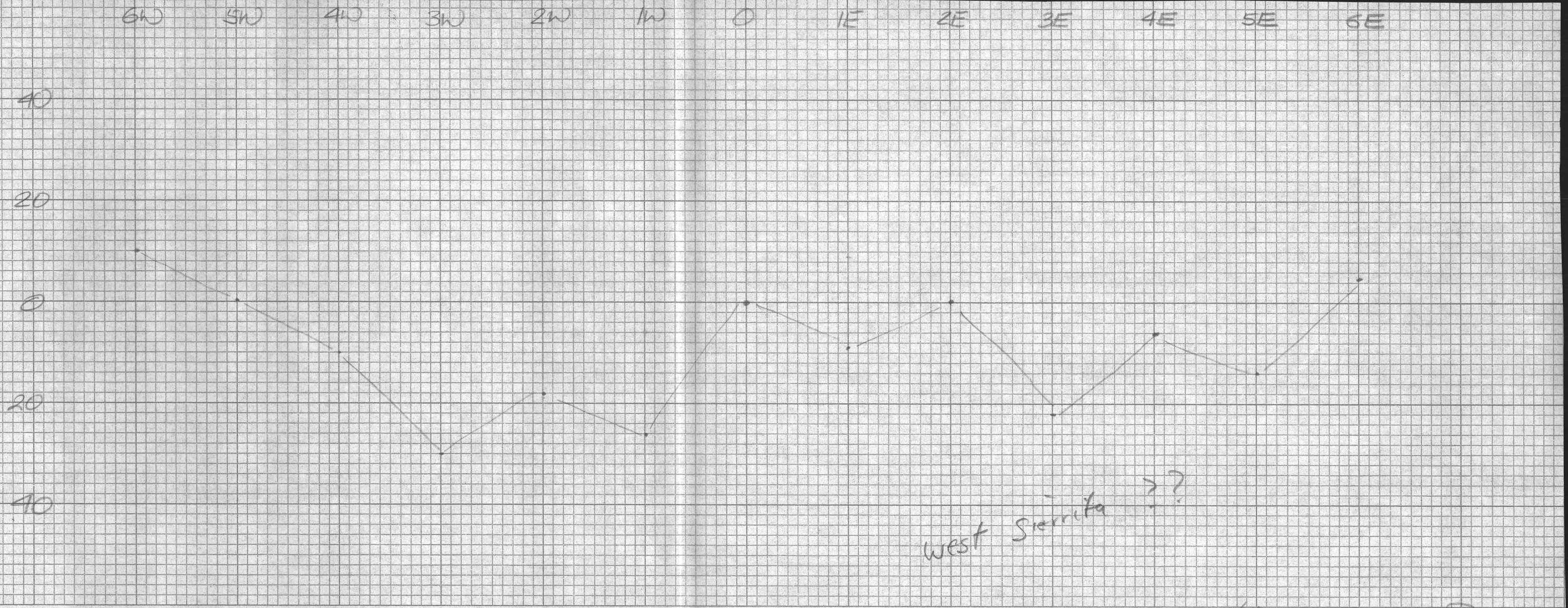

Line 6, S.P.

358-5L KEUFFEL & ESSER CO.
10 × 10 to the inch.
MADE IN U. S. A.

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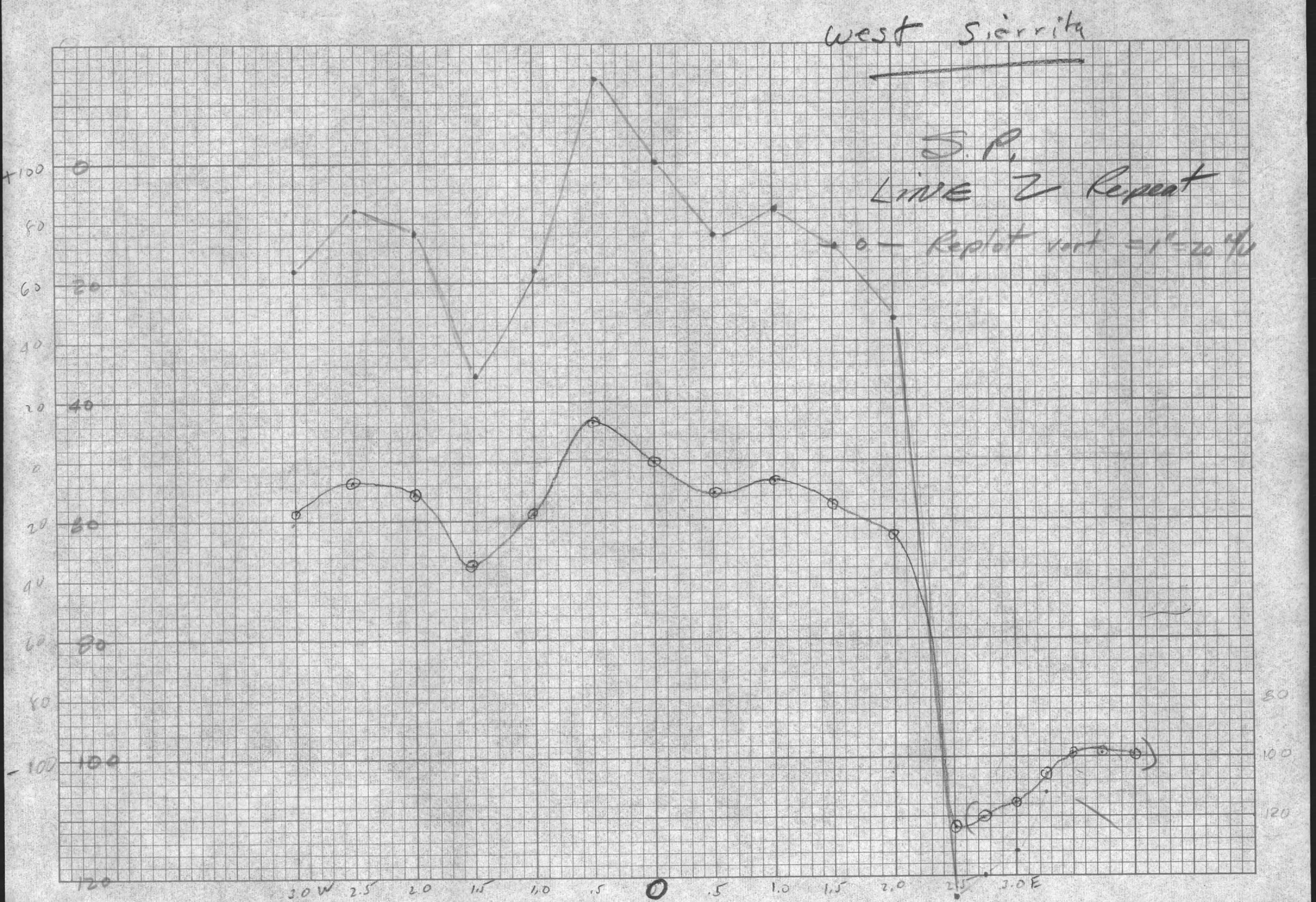
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