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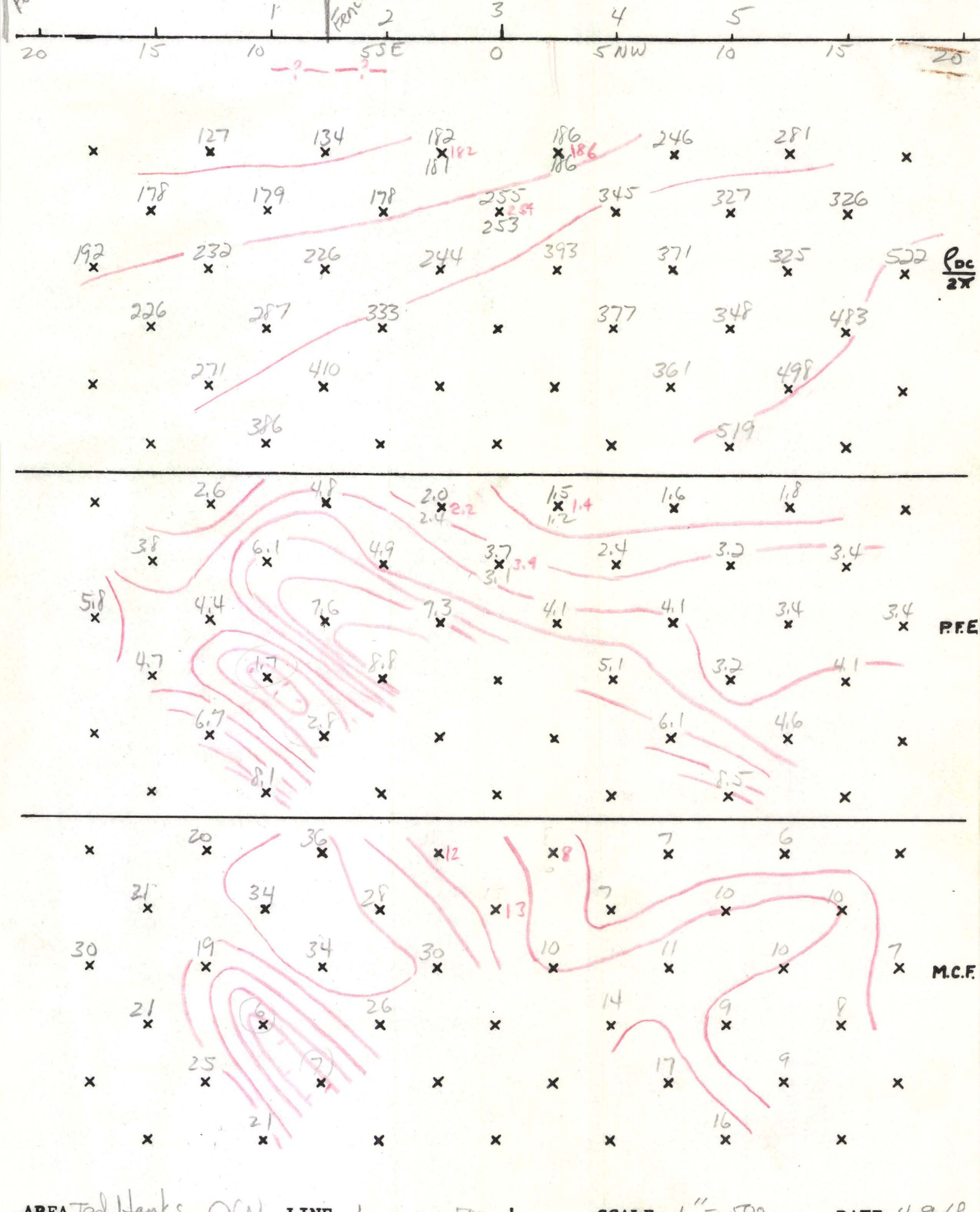
HEINRICHS GEOEX. INDUCED POLARIZATION SECTIONAL DATA PLOT, LOOKING S30W



AREA Ted Hanks OW LINE 1 a = 500 ' SCALE: 1" = 500 DATE: 4-9-68

PAGE

HEINRICHS GEOEXPLORATION CO.
I.P. RECEIVER NOTES

PROJECT Ted Hanks
LINE ow-1 HALF SE SP. 1 DATE 4-9

SEND	1-2	2-3	3-4	4-5	1-2	2-3	3-4	4-5	Cal	
RECEIVE	20-25	→			25-30	→			1-2	
RANGE	300	300	100	100	300	100	100	30	300	
DC 1	182	97.0	61.8	34.6	80.0	49.4	30.0	20.0	206	
DC 2	184	94.0	56.6	29.9	78.5	45.8	33.6	20.3	206	
DC 3	182	97.0	61.8	34.6	80.0	49.4	30.5	18.4	206	
DC 4	184	94.0	56.6	29.9	78.5	45.8	34.2	18.3	206	
DC 5							29.8	18.1		
DC 6							33.8	19.6		
DC 7							29.8	18.5		
DC 8							33.8	19.0		
DC AVG.	366	191	118.4	64.5	158.5	93.2	63.89	37.91	412	
AC 1	175.5	91.0	57.9	31.2	74.5	44.3	29.8	17.45	205	
AC 2	175.5	91.0	57.9	31.2	74.5	44.3	29.8	17.45	205	
AC AVG.	351	182	115.8	62.4	149	88.6	59.6	34.9	410	
S.P.	-18.9				+5.7					
AC NOISE	.11				.09					
POT RES.										

S60°E

PAGE

HEINRICHS GEOEXPLORATION CO.

I.P. RECEIVER NOTES

PROJECT Ted Hanks

LINE OW-1 HALF SE SP. 1 DATE 4-9

SEND	4-5	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5
RECEIVE	0-5	5-10 →	→	10-15	→	→	15-20	→	→	→
RANGE	1000	1000	300	1000	300	100	1000	300	300	100
DC 1	514	746	176	554	183	67.0	523	186	92.0	47.6
DC 2	507	746	172	552	184	67.6	525	183	94.0	44.0
DC 3	514	746	176	554	183	67.0	523	186	92.0	47.6
DC 4	507	746	172	552	184	67.6	525	183	94.0	44.0
DC 5										
DC 6										
DC 7										
DC 8										
DC AVG.	1021	1492	348	1106	369	134.6	1048	369	186	91.6
AC 1	502	725	168	525	174	62.4	508	173	86.0	41.9
AC 2	502	725	168	525	174	62.4	508	173	86.0	41.9
AC AVG.	1004	1450	336	1050	348	124.8	1016	346	172	83.8
S.P.	-4.9	-4.6		-0.4			-4.2			
AC NOISE	.05	.07		.06			.09			
POT RES.										

PAGE

HEINRICHS GEOEXPLORATION CO.
I.P. RECEIVER NOTES

PROJECT Ted Hanks
LINE ow-1 HALF NW SP. 1 DATE 4-9

SEND	4-5	3-4	2-3	1-2	4-5	3-4	2-3	1-2	cal	
RECEIVE	20-25	→	→	→	25-30	→	→	→	4-5	
RANGE	300	300	100	100	300	300	100	100	300	
DC 1	224	134	73.5	44.2	139	96.0	60.6	37.0	204	
DC 2	220	131	69.6	40.0	145	101.0	55.6	39.6	204	
DC 3	224	134	73.5	44.2	139	96.0	60.6	35.4	204	
DC 4	220	131	69.6	40.0	145	101.0	55.6	39.4	204	
DC 5								35.2		
DC 6								39.2		
DC 7								37.7		
DC 8			142.1					40.0/75.7		
DC AVG.	444	265	~~173.1~~	84.2	284	197	116.2	~~70.96~~	408	
AC 1	~~189~~211	126	67.7	39.0	135	93.0	54.6	34.3	200.5	
AC 2	211	126	67.7	39.0	135	93.0	54.6	34.3	200.5	
AC AVG.	422	252	135.4	78.0	270	186	109.2	68.6	401	
S.P.	-4.1				-3.9					
AC NOISE	.11				.09					
POT RES.										

PAGE

HEINRICHS GEOEXPLORATION CO.

I.P. RECEIVER NOTES

PROJECT Ted Hanks

LINE ow-1 HALF NW SP. / DATE 4-9

SEND	1-2	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2
RECEIVE	0-5	5-10	→	10-15	→	→	15-20	→	→	→
RANGE	1000	1000	1000	3000	1000	300	1000	1000	300	300
DC 1	745	758	259	1005	352	160	764	334	152	78.0
DC 2	743	762	262	1000	352	161	765	334	151	76.0
DC 3	945	758	259	1005	352	160	764	334	152	78.0
DC 4	743	762	262	1000	352	161	765	334	151	76.0
DC 5										
DC 6										
DC 7										
DC 8										
DC AVG.	1488	1520	521	2005	904	321.0	1529	668	303	154.0
AC 1	717	736	247	970	338	151.5	738	318	143	72.0
AC 2	717	736	247	970	338	151.5	738	318	143	72.0
AC AVG.	1434	1472	494	1940	676	303.0	1476	636	286	144
S.P.	-13.7	+1.0		+6.4			-8.9			
AC NOISE	.08	.09		.08			.09			
POT RES.										

HEINRICHS GEOEXPLORATION CO.

I. P. SENDER NOTES

PROJECT TED HANKS.

LINE OW HALF SE SP. 1 DATE 4-9-68

SEND	4-5	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5
RECEIVE	0-5	5-10	→	10-15	→	→	15-20	→	→	→
RANGE	LO	Hi	Hi	Hi	Hi	HI	Hi	Hi	Hi	HI
VOLTAGE	460	480	460	360	480	460	360	360	480	460
CURRENT	4.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	6.0	4.0
SEND	1-2	2-3	3-4	4-5	1-2	2-3	3-4	4-5		CAL 27
RECEIVE	20-25	→	→	→	25-30	→	→	→		1-2
RANGE	Hi	Hi	Hi	HI	Hi	Hi	Hi	Hi		HI
VOLTAGE	360	360	480	450	360	360	480	450		120
CURRENT	6.0	6.0	6.0	4.0	6.0	6.0	6.0	4.0		2.0

FREQUENCIES .05

SENDER NO. 156735

OPERATOR HIX

RECEIVER NO. 3641 R

OPERATOR PALMER

COMMENTS:

1-2	-	HI	- 30X - 000 -	X2.00	6
2-3	-	HI	- "	"	6
3-4	-	HI	- "	"	6
4-5	-	Hi	- 30X - 33.3	X1.00	4

HEINRICHS GEOEXPLORATION CO.

I. P. SENDER NOTES

PROJECT TED HANKS

LINE OW HALF NW SP. 1 DATE 4-9-68

SEND	1-2	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2
RECEIVE	0-5 NW	5-10	→	10-15	→	→	15-20	→	→	→
RANGE	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi
VOLTAGE	360	360	360	470	360	360	440	470	360	360
CURRENT	6.0	6.0	6.0	6.0	6.0	6.0	4.0	6.0	6.0	6.0
SEND	4-5	3-4	2-3	1-2	4-5	3-4	2-3	1-2		CAL 27
RECEIVE	20-25	→	→	→	25-30	→	→	→		4-5
RANGE	Hi	Hi	Hi	Hi	Hi	Hi	Hi	Hi		Hi
VOLTAGE	440	470	360	360	440	470	360	360		220
CURRENT	4.0	6.0	6.0	6.0	4.0	6.0	6.0	6.0		2.0

FREQUENCIES .05 3.0

SENDER NO. 156735

OPERATOR HIX

RECEIVER NO. 3641 R

OPERATOR PALMER

COMMENTS:

Hi
- 1-2 x30 - 00.0 - 200 - 6.0
- 2-3 x30 - " - " - 6.0
- 3-4 x30 - " - " - 6.0
- 4-5 x30 - 33.3 - 1.00 - 4.0

HEINRICHS GEOEXPLORATION COMPANY
INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Page_____

Project Ted Hanks OW Line 1 SE Field date 4-9-68 Data page_____ Comp. date_____. Comp by_____

(A) Send	4-5	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5		
(B) Receive	0-5	5-10 →		10-15 →			15-20 →					
(C) n separation	1	1	2	1	2	3	1	2	3	4		
(D) I	4A	6A	4A	6A →		4A	6A →			4A		
(E) Vdc (avg)	1021	1492	348	1106	369	134.6	1048	369	186	91.6		
(F) DCcal	.485											
(G) Kn x 10^{-3}	1.5	1.5	6	1.5	6	15	1.5	6	15	30		
(H) ρ dc=ExFxGx10^3/D	186	181	253	134	178	~~244~~	127	179	226	~~1007~~ 333		
(I) Vac Σ	1004	1450	336	1050	348	124.8	1016	346	172	83.8		
(J) AC noise x 2												
(K) Vac(corr) $=\sqrt{I^2 - J^2}$												
(L) AC-DC cal.	.995											
(M) ρ dc/ρac=ExL/K												
(N) PFE=(M-1)(10^2)	1.2	2.4	3.1	4.8	4.9	7.3	2.6	6.1	7.6	8.8		
(O) MCF=(M-1)(10^5)/H	6	13		36	28	30	20	34	34	26		

Project_____ Line_____ Field date_____ Data page_____ Comp. date_____ Comp by_____

(A) Send	1-2	2-3	3-4	4-5	1-2	2-3	3-4	4-5		cal		
(B) Receive	20-25 →				25-30 →					1-2		
(C) n separation	2	3	4	5	3	4	5	6				
(D) I	6A →			4A	6A →			4A		2A		
(E) Vdc (avg)	366	191	118.4	64.5	158.5	93.2	63.89	37.91		412		
(F) DCcal												
(G) Kn x 10^{-3}	6	15	30	52.5	15	30	52.5	84				
(H) ρ dc=ExFxGx10^3/D	178	232	287	410	192	226	271	386				
(I) Vac Σ	351	182	115.8	62.4	149	88.6	59.6	34.9		410		
(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)	3.8	4.4	1.7	2.8	5.8	4.7	6.7	8.1				
(O) MCF=(M-1)(10^5)/H	21	19	6	7	30	21	25	21				

3.0 - .05

N 60° W

HEINRICHS GEOEXPLORATION COMPANY
INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Page_____

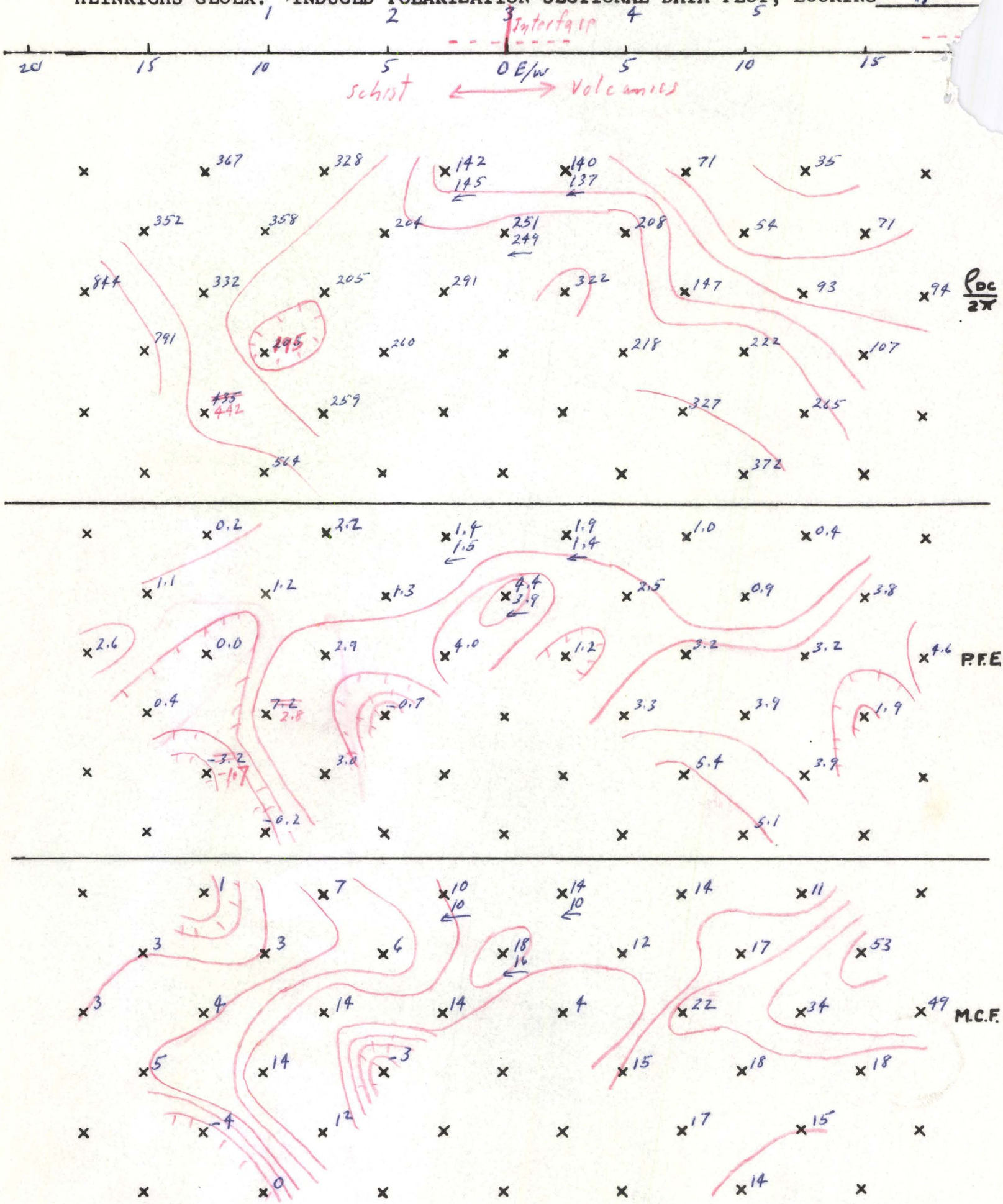
Project Ted Hanks OW Line 1 NW Field date 4-9-68 Data page_____ Comp. date_____. Comp by_____

(A) Send	1-2	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2		
(B) Receive	0-5	5-10	→	10-15	→	→	15-20	→	→	→		
(C) n separation	1	1	2	1	2	3	1	2	3	4		
(D) I	6A	→	→	→	→	6A	4A	6A	→	→		
(E) Vdc (avg)	1488	1520	521	2005	704	321	1529	668	303	154		
(F) DCcal	.490											
(G) Kn x 10^{-3}	1.5	1.5	6.0	1.5	6.0	15	1.5	6.0	15	30		
(H) ρ dc=ExFxGx10^3/D	182	186	255	246	345	393	281	327	371	377		
(I) Vac Σ	1434	1472	494	1940	676	303	1476	636	286	144		
(J) AC noise x 2												
(K) Vac(corr) $=\sqrt{I^2 - J^2}$												
(L) AC-DC cal.	.983											
(M) ρ dc/ρac=ExL/K												
(N) PFE=(M-1)(10^2)	2.0	1.5	3.7	1.6	2.4	4.1	1.8	3.2	4.1	5.1		
(O) MCF=(M-1)(10^5)/H	11	8	15	7	7	10	6	10	11	14		

Project_____ Line_____ Field date_____ Data page_____ Comp. date_____ Comp by_____

(A) Send	4-5	3-4	2-3	1-2	4-5	3-4	2-3	1-2		cal		
(B) Receive	20-25	→	→	→	25-30	→	→	→		4-5		
(C) n separation	2	3	4	5	3	4	5	6				
(D) I	4A	6A	→	→	4A	6A	→	→		2A		
(E) Vdc (avg)	444	265	~~173.1~~ 142.1	84.2	284	197	116.2	~~70.96~~ 75.71		408		
(F) DCcal												
(G) Kn x 10^{-3}	6.0	15	30	52.5	15	30	52.5	84				
(H) ρ dc=ExFxGx10^3/D	~~163~~ 326	325	~~424~~ 348	361	522	483	498	~~489~~ 519				
(I) Vac Σ	422	252	135.4	78.0	270	186	109.2	68.6		401		
(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)	3.4	3.4	3.2	6.1	3.4	4.1	4.6	~~1.7~~ 8.5				
(O) MCF=(M-1)(10^5)/H	10	10	9	17	7	8	9	~~8~~ 16				

HEINRICHS GEOEX. INDUCED POLARIZATION SECTIONAL DATA PLOT, LOOKING N



AREA 244 Hanks LINE G2 Sp'a = 500 ' SCALE: _____ DATE: 3/29

HEINRICHS GEOEXPLORATION COMPANY
INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Page 1

Project Hanks 244 Line G2 E½ Field date 3/28 Data page _____ Comp. date _____. Comp by _____

(A) Send	1 – 2	2 – 3	1 – 2	3 – 4	2 – 3	1 – 2	4 – 5	3 – 4	2 – 3	1 – 2		
(B) Receive	0 – 5E	5 – 10	—	10 – 15	—	—	15 – 20	—	—	—		
(C) n separation	300	300	100	100	100	100	100	30	30	30		
(D) I	2.0	→	→									
(E) Vdc (avg)	194	192	86	97.5	71.1	44.0	47.5	18.35	20.1	14.9		
(F) DCcal	.9756											
(G) Kn x 10^{-3}	1.5	1.5	6	1.5	6	15	1.5	6	15	30		
(H) ρ dc=ExFxGx10^3/D	142	140	251	71	208	322	35	54	147	218		
(I) Vac Σ												
(J) AC noise x 2												
(K) Vac(corr) = $\sqrt{I^2 - J^2}$	204	200	88	103	74	46.5	51	19.4	20.8	15.4		
(L) AC-DC cal.	1.052	→	→									
(M) ρ dc/ρac=ExL/K												
(N) PFE=(M-1)(10^2)	0.0 1.4	0.5 1.9	3.0 4.4	-0.4 1.0	1.1 2.5	-0.2 1.2	-1.8 0.4	-0.5 0.9	1.8 3.2	1.9 3.3		
(O) MCF=(M-1)(10^5)/H	10	14	18	14	12	4	11	17	22	15		
	-15	+9		+2			+5					

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

(A) Send	4 – 5	3 – 4	2 – 3	1 – 2	4 – 5	3 – 4	2 – 3	1 – 2				4 – 5
(B) Receive	20 – 25	—	—	—	25 – 30	—	—	—				cal
(C) n separation	30	10	30	10	10	10	10	10				
(D) I	2.0	→										
(E) Vdc (avg)	24.4	12.7	15.2	12.77	12.86	7.296	10.33	9.10				205
(F) DCcal												
(G) Kn x 10^{-3}	6	15	30	52.5	15	30	52.5	84				
(H) ρ dc=ExFxGx10^3/D	71	93	222	327	94	107	265	372				
(I) Vac Σ												
(J) AC noise x 2												
(K) Vac (corr) = $\sqrt{I^2 - J^2}$	25.1	13.15	15.6	12.95	13.1	7.65	10.6	9.25				216
(L) AC-DC cal.												
(M) ρdc/ρac =ExL/K												
(N) PFE=(M-1)(10^2)	2.4 3.8	1.8 3.2	2.5 3.9	3.9 5.4	3.2 4.6	0.5 1.9	2.5 3.9	3.7 5.1				
(O) MCF=(M-1)(10^5)/H	53	34	18	17	49	18	15	14				
	-2				+15							

HEINRICHS GEOEXPLORATION COMPANY

INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Page_____

Project 244 Hawks Line G2 W½ Field date 3/28 Data page_____ Comp. date_____. Comp by_____

(A) Send	4-5	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5		
(B) Receive	0-5 W	5-10	—	10-15	—	—	15-20	—	—	—		
(C) n separation	300	300	100	1000	100	30	1000	300	30	30		
(D) I	2	→										
(E) Vdc (avg)	.995											
(F) DCcal	184	193.6	83.3	440	68.5	38.94	492	120	27.46	17.4		
(G) Kn x 10^{-3}	1.5	1.5	6	1.5	6	15	1.5	6.0	15.0	30		
(H) ρ dc=ExFxGx10^3/D	137	145	249	328	204	291	367	358	205	260		
(I) Vac Σ												
(J) AC noise x 2												
(K) Vac(corr) = $\sqrt{I^2 - J^2}$	196	204	86.5	465	73.0	40.4	530	128	28.8	18.9		
(L) AC-DC cal.	1.095	—										
(M) ρ dc/ρac=ExL/K												
(N) PFE=(M-1)(10^2)	2.8 1.4	3.9 1.5	5.4 3.9	3.6 2.2	2.7 1.3	5.4 4.0	1.6 0.2	2.6 1.2	4.3 2.9	0.7 -0.7		
(O) MCF=(M-1)(10^5)/H	10	10	16	7	6	14	1	3	14	-3		
	+3	-3		0			+18					

Project_____ Line_____ Field date_____ Data page_____ Comp. date_____ Comp by_____

(A) Send	1-2	2-3	3-4	4-5	1-2	2-3	3-4	4-5				1-2
(B) Receive	20-25	—	—	—	25-30	—	—	—				Cal
(C) n separation	300	100	30	10	100	100	30	30				300
(D) I	→											
(E) Vdc (avg)	118	44.5	13.06	9.92	113.1	53.0	16.93	13.5				201
(F) DCcal												
(G) Kn x 10^{-3}	6	15	30	52.5	15	30	52.5	84				
(H) ρ dc=ExFxGx10^3/D	352	332	195	259	844	791	442	564				
(I) Vac Σ												
(J) AC noise x 2												
(K) Vac (corr) = $\sqrt{I^2 - J^2}$	126	48	13.7	10.4	119	57	18.6	14.6				220
(L) AC-DC cal.	1.095	—										
(M) ρdc/ρac =ExL/K												
(N) PFE=(M-1)(10^2)	2.5 1.1	1.4 0	4.2 2.8	4.4 3.0	4.0 2.6	1.8 0.4	-0.3 (-1.7)	-0.2 1.2				
(O) MCF=(M-1)(10^5)/H	3	4	14	12	3	5	-4	-0				
	+9				+1							

2.5 3.5
1.5) 32.5
45
75

1.5) 84
75
90

HEINRICHS GEOEXPLORATION CO.

I.P. RECEIVER NOTES

PROJECT 244 Hanks

LINE G2 HALF E1/2 SP. 1 DATE 3/28

PAGE 1

SEND	1 - 2	2 - 3	1 - 2	3 - 4	2 - 3	1 - 2	4 - 5	3 - 4	2 - 3	1 - 2
RECEIVE	0 - 5E	5 - 10	—	10 - 15	—	—	15 - 20	—	—	—
RANGE	300	300	100	100	100	100	100	30	30	30
DC 1	96	94	44	48.5	35.5	~~22~~	235	98	93	78
DC 2	98	98	42	49	35.5	~~225~~	240	85	108	72
DC 3	96	94	44	48.5	36.0	22	235	98	100	79
DC 4	98	98	42	49	35.	22	240	86	100	72
DC 5						22	235	97	98	77
DC 6						22	240	86	100	70
DC 7								100	100	77
DC 8								84	102	70
DC AVG.	194	192	86	97.5	71.1	44.0	475	183.5	201	149
AC 1	102	100	44	51.5	37	23	25.5	9.7	10.4	7.7
AC 2	102	100	44	51.5	37	23.5	25.5	9.7	10.4	7.7
AC AVG.	204	200	88	103.0	74	46.5	51.0	19.4	20.8	15.4
S.P.	-15.4	+9		+2			+5			
AC NOISE	0.15	0.12		0.11			0.12			
POT RES.										

HEINRICHS GEOEXPLORATION CO.

I.P. RECEIVER NOTES

PROJECT 244

LINE G2 HALF E½ SP. 1 DATE 3/28

SEND	4-5	3-4	2-3	1-2	4-5	3-4	2-3	1-2		4-5
RECEIVE	20-25				25-30					Cal
RANGE	30	10	30	10	10	10	10	10		300
DC 1	132 113	61	80	64 65	66 67	375 400	520	445		102
DC 2	110 129	66	72	65 63	61 62	320 355	500	460		103
DC 3	117	62	78	65 645	70 67	382 400	530	440		102
DC 4	128	67	74	64 640	62 62	340 315	490	450		103
DC 5	124	61	80	63	71 65	395 410	530	480		
DC 6	127	66	73	62.5	62 59	340 315	525	460		
DC 7	113	61	80	63	68 65	410 385	525	450		
DC 8	127	66	72	62.5	61 67	345 330		445		
DC AVG.	24.4	12.7	15.2	12.77	12.86	7.796	10.33	9.10		205
AC 1	12.6	6.6	7.8	6.5	6.6	385	530	465		108
AC 2	12.5	6.55	7.8	6.45	6.6	380	530	460		108
AC AVG.	25.1	13.15	15.6	12.95	13.1	7.65	10.6	9.25		216
S.P.	-1.8				+15					
AC NOISE	0/2				0.10					
POT RES.										

HEINRICHS GEOEXPLORATION CO.

I.P. RECEIVER NOTES

PROJECT 294

LINE G2 HALF W1/2 SP. 1 DATE 3/28

SEND	4-5	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5
RECEIVE	0-5W	5-10	~~10~~	10-15			15-20			
RANGE	300	300	100 *	1000 *	100 *	30	1000	300	30	30
DC 1	91	96	43	220	340	19.8	245	60	136	87
DC 2	93	97	40.5	220	345	190	247	60	139	87
DC 3	91	96	43.5	220	340	195	245	60	135	87
DC 4	93	98	4.0	220	345	194	247	60	140	87
DC 5		96	4.0			200			134	
DC 6		98	43			191			141	
DC 7			40			197				
DC 8			43			194				
DC AVG.	184	193.6	833	440	685	38.94	492	120	2746	174
AC 1	98	102	43.0	235	36.5	20.2	265	64.0	144	95
AC 2	98	102	43.5	230	36.5	20.2	265	64.0	144	94
AC AVG.										18.9
S.P.	+3	-3		0			+18			
AC NOISE	0.2	0.25		0.18			5.2			
POT RES.										

HEINRICHS GEOEXPLORATION CO.
I.P. RECEIVER NOTES

PROJECT 244
LINE 62 HALF W SP. 1 DATE 3/28

PAGE 0

SEND	1 - 2	2 - 3	3 - 4	4 - 5	1 - 2	2 - 3	3 - 4	4 - 5		1 - 2
RECEIVE	20 - 25				25 - 30					cal
RANGE	300	100	30	10	100	100	30	30		300
DC 1	~~20~~	22.5	61	5.7 995	59	26	85 73	70 78		100
DC 2	59	22.5	73	91 500	56	27	85 100	63 60		101
DC 3	59	22.0	61	57 485	57	26	72	85 75		100
DC 4	59	22.5	71	43	55	28	87	55 57		101
DC 5	59	22.0	57	47	57	25	75	80 73		
DC 6		22.5	68	51	56	27	93	55 54		
DC 7				52	57	26	76	78 74		
DC 8				49	57	27	97	63 55		
DC AVG.	118	49.5	13.06	9.92	113.1	53.0	16.98	13.5.0		201
AC 1	63.0	24.0	6.9	5.2	59.5	28	9.4	7.3		110
AC 2	63.0	24.0	6.8	5.2	59.5	29	9.2	7.3		110
AC AVG.	126	48	13.7	10.4	119	57	18.6	14.6		220
S.P.	+9				+1					
AC NOISE	.20				.28					
POT RES.										

INDUCED POLARIZATION SENDER NOTES

Project: HANKS Line: G-2 - E 1/2 Date: 28 MARCH.

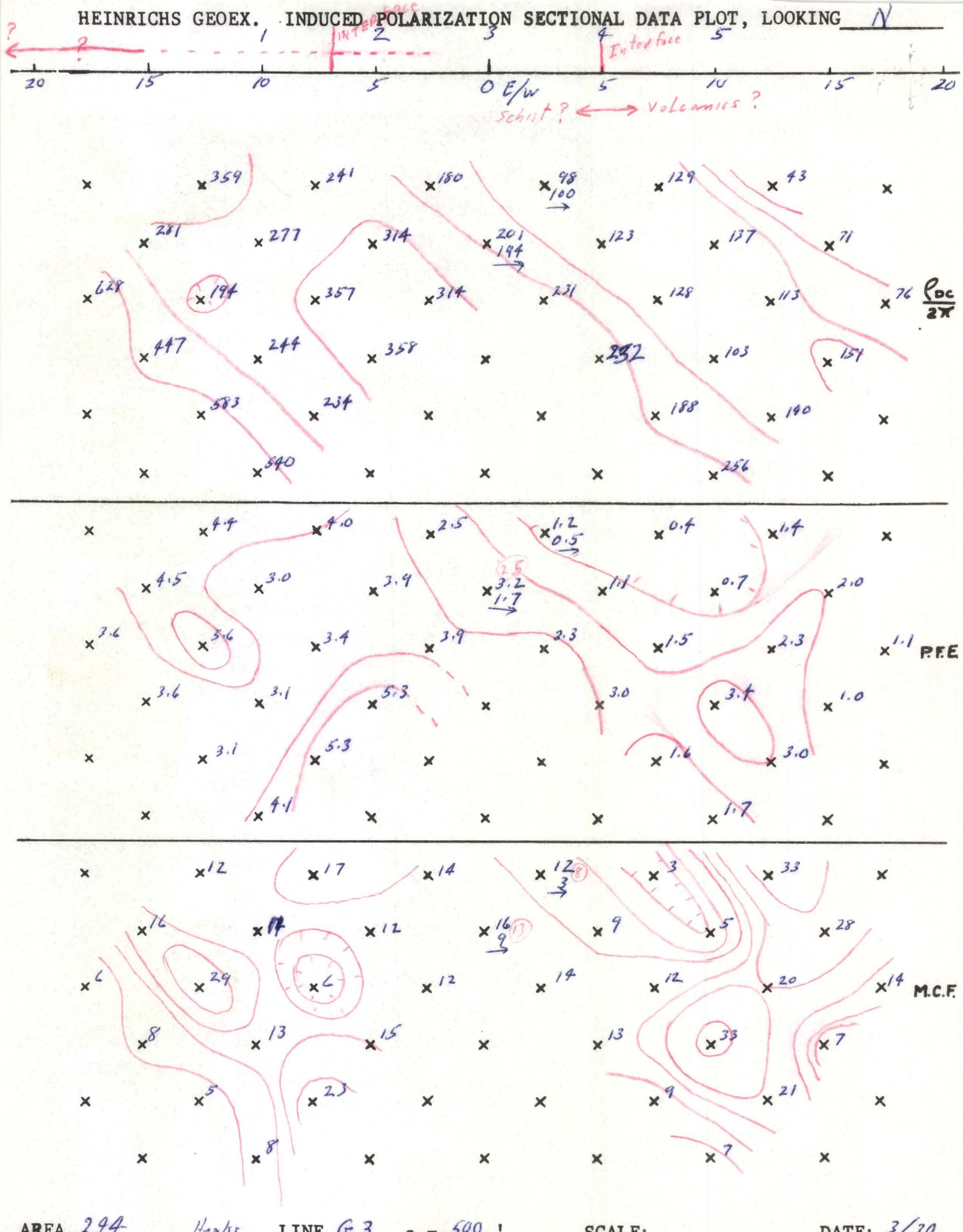
Send	1-2	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2		
Receive	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Time	0-500	500	1000	1000		1500	1500			2000		
Range	2.0											
Current											CAC	
Send	4-5	3-4	2-3	1-2		4-5	3-4	2-3	1-2		4-5	
Receive	✓	✓	✓	✓		✓	✓	✓	✓		✓	
Time												
Range	2000		2500			2500				3000.	1000 1500	
Current												

INDUCED POLARIZATION SENDER NOTES

Project: HANKS Line: G-2 - W ½ Date:

Send	4-5	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5		
Receive	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Time	2.0	2.0		2.0			2.0	1				
Range	0-500	500 —	1000	1000	—	1500	1500	—	—	2000		
Current											Cal	
Send	1-2	2-3	3-4	4-5		1-2	2-3	3-4	4-5		1-2	
Receive	✓	✓	✓	✓							✓	
Time												
Range	2000	—	—	2500		2500	—	—	3000			
Current												

HEINRICHS GEOEX. INDUCED POLARIZATION SECTIONAL DATA PLOT, LOOKING N



AREA 294 Hayhs LINE G3 a = 500 ' SCALE: DATE: 3/30

W 1/2

HEINRICHS GEOEXPLORATION COMPANY
INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Page_____

Project Hanks Line G-3 Field date 3-29 Data page_____ Comp. date 3-30-68. Comp by JPM

(A) Send	4-5	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5		
(B) Receive	0-5	5-10	→	10-15	→	→	15-20	→	→	→		
(C) n separation												
(D) I	3000	→	→	→	→	→	→	→	→	→		
(E) Vdc (avg)	141	260	72.5	347	113	45.3	518	99.6	51.4	25.8		
(F) DCcal	.9239											
(G) Kn x 10^{-3}	1.5	1.5	6.0	1.5	6.0	15	1.5	6	15	30		
(H) ρ dc=ExFxGx10^3/D	98	180	201	241	314	314	359	277	357	358		
(I) Vac Σ	146	266	73.6	350	114	45.7	520	101.4	52.1	25.7		
(J) AC noise x 2	.1	.11	→	.10	→	→	.15	→	→	→		
(K) Vac(corr) = $\sqrt{I^2 - J^2}$												
(L) AC-DC cal.												
(M) ρ dc/ρac=ExL/K												
(N) PFE=(M-1)(10^2)	1.2	2.5	3.2	4.0	3.9	3.9	4.4	3.0	3.4	5.3		
(O) MCF=(M-1)(10^5)/H	12	14	16	17	12	12	12	11	6	15		
S.P.	-10.9	+8.1	→	-2.6	→	→	-4.7	→	→	→		

Project_____ Line_____ Field date_____ Data page_____ Comp. date_____ Comp by_____

(A) Send	1-2	2-3	3-4	4-5	1-2	2-3	3-4	-5			CAK	
(B) Receive	20-25	→	→	→	25-30	→	→	→				
(C) n separation												
(D) I	2000	→	→	→	→	→	→	→				
(E) Vdc (avg)	101	27.9	17.6	9.64	90.5	32.2	24.0	13.9			206	
(F) DCcal												
(G) Kn x 10^{-3}	6	15	30	52.5	15	30	52.5	84				
(H) ρ dc=ExFxGx10^3/D	281	194	294	234	628	447	583	540				
(I) Vac Σ	101.3	27.7	17.9	9.6	91.6	32.6	24.4	14.0			216	
(J) AC noise x 2												
(K) Vac (corr) = $\sqrt{I^2 - J^2}$												
(L) AC-DC cal.											1.048	
(M) ρdc/ρac =ExL/K												
(N) PFE=(M-1)(10^2)	4.5	5.6	3.1	5.3	3.6	3.6	3.1	4.1				
(O) MCF=(M-1)(10^5)/H	16	29	13	23	6	8	5	8				

-3.3 → +1.3 →

1 4 10 20 35 56

HEINRICHS GEOEXPLORATION COMPANY

INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Page_____

Project HANKS Line G-3 E½ Field date 3-29-68 Data page_____ Comp. date 3-30-68 Comp by JPM

(A) Send	1-2	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2		
(B) Receive												
(C) n separation												
(D) I		2000	→									
(E) Vdc (avg)		140	68	180	43.0	32.3	116.0	48.1	18.0	16.3		
(F) DCcal		.950										
(G) Kn x 10^{-3}		1.5	6	1.5	6	15	1.5	6	15	30		
(H) ρ dc=ExFxGx10^3/D		100	194	129	123	231	43	137	128	232		
(I) Vac Σ		146	70.1	188	44.6	32.8	120	50.1	18.6	16.6		
(J) AC noise x 2		0.1	→	0.1	→		0.1	→				
(K) Vac(corr) = $\sqrt{I^2 - J^2}$												
(L) AC-DC cal.												
(M) ρ dc/ρac=ExL/K												
(N) PFE=(M-1)(10^2)		0.5	1.7	0.4	1.1	3.3	1.4	0.7	1.5	3.0		
(O) MCF=(M-1)(10^5)/H		3	9	3	9	14	33	5	12	13		
S.P.	~~9.3~~	-9.3	→	-4.9	→		-2.7	→				

Project_____ Line_____ Field date_____ Data page_____ Comp. date_____ Comp by_____

(A) Send	4-5	3-4	2-3	1-2	4-5	3-4	2-3	1-2		CAL		
(B) Receive												
(C) n separation												
(D) I	2000	→										
(E) Vdc (avg)	24.9	15.8	7.20	7.51	13.3	10.6	5.60	6.4		210		
(F) DCcal												
(G) Kn x 10^{-3}	6	15	30	50.5	15	30	50.5	84				
(H) ρ dc=ExFxGx10^3/D	71	113	103	188	76	151	140	256				
(I) Vac Σ	25.6	16.2	7.30	7.75	13.8	11.0	5.70	6.6		216		
(J) AC noise x 2	0.1	→		→	0.1	→						
(K) Vac (corr) = $\sqrt{I^2 - J^2}$												
(L) AC-DC cal.	~~1.0285~~											
(M) ρdc/ρac =ExL/K	1.0488											
(N) PFE=(M-1)(10^2)	2.0	2.3	3.4	1.6	1.1	1.0	3.0	1.7				
(O) MCF=(M-1)(10^5)/H	28	20	33	9	14	7	21	7				
	0.1	→			0.1	→						

HEINRICHS GEOEXPLORATION CO.

I.P. RECEIVER NOTES

PROJECT HANKS

LINE G3 HALF ~~W~~ E SP. 1 DATE 3-29

SEND	1-2	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2
RECEIVE	0-5	5-10	→	10-15	→	→	15-20	→	→	→
RANGE		300	100	300	100	30				
DC 1		70	34.0	90	21.5	16.0	58.0	24.0	9.0	8.0
DC 2		70	34.0	90	21.5	16.3	58.0	24.1	9.0	8.3
DC 3		70	34.0	90	21.5	16.0		24.0	9.0	8.0
DC 4		70	34.0	90	21.5	16.3		24.1	9.0	8.3
DC 5										
DC 6										
DC 7										
DC 8							116			
DC AVG.		140	68	180	43.0	32.3	~~60.0~~	48.1	18.0	16.3
AC 1		73.	35.0	94.0	22.3	16.4	60	25.1	9.3.	8.3
AC 2		73	35.1	94.0	22.3	16.4	60	25.0	9.3	18.3
AC AVG.		146	70.1	188.0	44.6	32.8	120.0	50.1	18.6	16.6
S.P.		-9.3		-4.9			-2.7	→	→	→
AC NOISE		0.1	→	0.1	→	→	0.1	→	→	→
POT RES.										

HEINRICHS GEOEXPLORATION CO.
I.P. RECEIVER NOTES

PROJECT HANKS
LINE G-3 HALF ~~W~~ E SP. 1 DATE 3-29

SEND	4-5	3-4	2-3	1-2	4-5	3-4	2-3	1-2	CAL	
RECEIVE	20-25			→	25-30	→	→	→		
RANGE	30	30	10	10	30	30	3.05	3.4	300	
DC 1	12.0	8.3	3.4 3.65	~~3.75 3.6~~	6.3 7.0	5.6	2.6	3.0	105	
DC 2	12.8	7.5	3.4 3.80	4.0 3.65	6.3 7.0	5.1	3.0	3.6	105	
DC 3	12.1	8.3	3.3 3.80	4.0 3.60	6.3	5.6	2.60	2.8		
DC 4	12.8	7.5	3.2 3.80	3.90 3.65		5.1	3.0	3.6		
DC 5	12.1			3.65 3.60				2.8		
DC 6										
DC 7										
DC 8										
DC AVG.	24.9	15.8	7.20	7.51	13.3	10.6	5.60	6.4	210	
AC 1	12.8	8.1	3.65	3.90	7.0	5.5	2.85	3.30	108	
AC 2	12.8	8.1	3.65	3.85	6.8	5.5	2.85	3.30	108	
AC AVG.	25.6	16.2	7.30	7.75	13.8	11.0	5.70	6.6	216	
S.P.	8.3 -	→	→	→	+3.3	→	→	→		
AC NOISE	0.10	→	→	→		130				
POT RES.										

HEINRICHS GEOEXPLORATION CO.
I.P. RECEIVER NOTES

PROJECT HANKS
LINE G3 HALF W SP. 1 DATE 3-29

PAGE 1

SEND	45	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5
RECEIVE	0-5	5-10	→	10-15	→	→	15-20	→	→	→
RANGE	300	300	100	300	100	30	1000	100	100	30
DC 1	70	130	37.5	175	57	22.9	260	49.2	27.0 24.8	~~11.8 14.2~~
DC 2	71	130	35.0	172	56	22.4	258	50.5	27.0 24	~~10.8 14.2~~
DC 3	70	130	37.5	175	57	22.9	260	49.0	27.5 23.9	11.3 16.0
DC 4	71	130	35.0	172	56	22.4	258	51.0	27.0 24.4	10 15.5
DC 5								48.2		11.2 14.6
DC 6								51.5		10.4 14.8
DC 7										11.0 14.0
DC 8										
DC AVG.	141	260	72.5	347	113	45.3	518	99.6	51.4	25.8
AC 1	73	133	36.8	175	57.0	22.9	260	50.8	26.0	12.9
AC 2	73	133	36.8	175	57.0	22.8	260	56.6	26.1	12.8
AC AVG.	146	266	73.6	350	114	45.7	520	101.4	52.1	25.7
S.P.	-10.9	+8.1	-2.6				-4.7			
AC NOISE	.1	.1	.10	→	→	→	.15			
POT RES.										

-4.7 on last station

HEINRICHS GEOEXPLORATION CO.

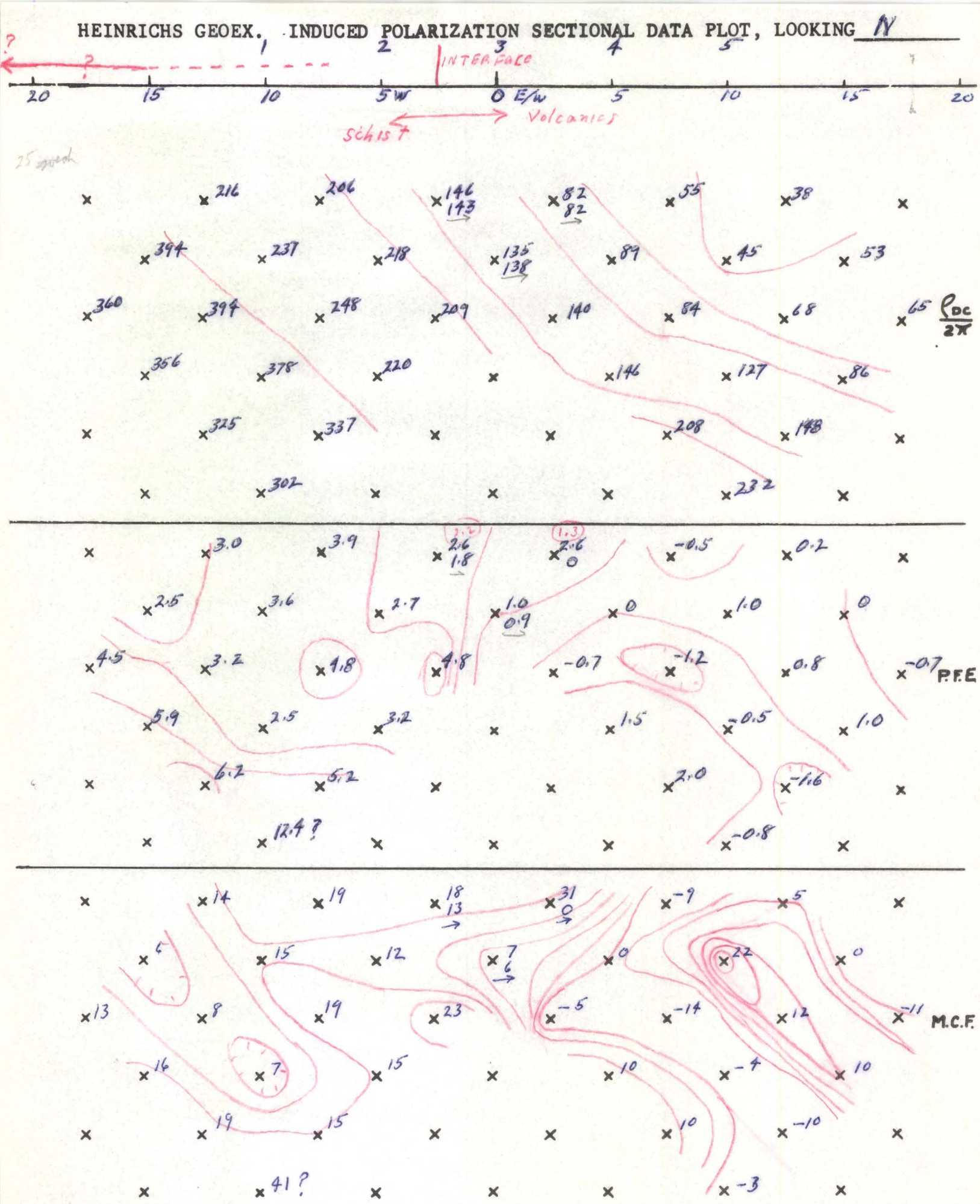
I.P. RECEIVER NOTES

PROJECT HAWKS

LINE G3 HALF W SP. 1 DATE 3-29

SEND	1-2	2-3	3-4	4-5	1-2	2-3	3-4	4-5	CAL	
RECEIVE	20-25	→		→	25-30	→			→	
RANGE	100	30	30	10	100	30		30	300	
DC 1	51.0	13.6	9.1 8.5	5.0 4.6	44.6	16.7	11.5 13.8	6.6 7.4	103	
DC 2	50.0	14.3	9.1 8.3	5.0 4.8	46.5	15.3	11.8 12.3	6.9 6.9	103	
DC 3	51.0	13.6	9.3 8.3	4.8 4.8	44.0	16.7	11.0 12.2	7.0 6.9		
DC 4	50.0	14.3			46.5	15.8	11.2 12.7			
DC 5		13.6				16.6	13.1 11.7			
DC 6										
DC 7										
DC 8										
DC AVG.	101	27.9	17.6	9.64	90.5	32.2	24.0	13.9		
AC 1	50.6	13.9	9.0	4.8	45.8	16.4	12.2	7.0	108	
AC 2	50.7	13.8	8.9	4.8	45.8	16.2	12.2	7.0	108	
AC AVG.	101.3	27.7	17.9	9.6	91.6	32.6	24.4	14.0		
S.P.	-3.3				+1.3					
AC NOISE	.10	→	→	→	0.1					
POT RES.										

HEINRICHS GEOEX. INDUCED POLARIZATION SECTIONAL DATA PLOT, LOOKING N



AREA 244 Hanks LINE G 1 a = 500' SCALE: DATE: 3/28

HEINRICHS GEOEXPLORATION COMPANY
INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Page 1

Project Hanks 244 Line G1 E½ Field date 3/27/68 Data page _____ Comp. date _____. Comp by PGF

(A) Send	1-2	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2		
(B) Receive	0-5E	5-10	—	10-15	—	—	15-20	—	—	—		
(C) n separation	300	100	100	100	30	30	100	30	30	10		
(D) I	2.0	—	—	—	—	—	—	—	—	→		
(E) Vdc (avg)	195	110.8	47	74.5	30.3	19.1	51.8	15.1	11.4	9.91		
(F) DCcal	0.980											
(G) Kn x 10^{-3}	1.5	1.5	6	1.5	6	15	1.5	6.0	15	30		
(H) ρ dc=ExFxGx10^3/D	143	81.5	138	54.6	89	140	38.1	44.5	83.8	146		
(I) Vac Σ												
(J) AC noise x 2												
(K) Vac(corr) = $\sqrt{I^2 - J^2}$	204	117.8	49.6	79.8	32.3	20.5	55.3	15.9	12.3	10.4		
(L) AC-DC cal.	1.064	→										
(M) ρ dc/ρac=ExL/K												
(N) PFE=(M-1)(10^2)	1.8	0.0	0.9	-0.5	0	-0.7	0.2	1.0	-1.2	1.5		
(O) MCF=(M-1)(10^5)/H	13	0	6	-9	0	-5	5	22	-14	10		
	+13	-1		-33			+29					

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

(A) Send	4-5	3-4	2-3	1-2	4-5	3-4	2-3	1-2				4-5
(B) Receive	20-25	—	—	—	25-30	—	—	—				Cal
(C) n separation	30	10	10	10	10	10	10	10				300
(D) I	2.0	—	—	—	—	—	—	→				2
(E) Vdc (avg)	17.84	9.325	8.66	7.81	8.915	5.875	5.72	5.632				204
(F) DCcal												
(G) Kn x 10^{-3}	6.0	15	30	52.5	15	30	52.5	84				
(H) ρ dc=ExFxGx10^3/D	52.5	68.4	127	208	65.4	863	148	232				
(I) Vac Σ	19.0	9.85	9.25	8.15	9.55	6.20	6.20	6.05				217
(J) AC noise x 2												
(K) Vac (corr) = $\sqrt{I^2 - J^2}$												
(L) AC-DC cal.	1.064	→										
(M) ρdc/ρac =ExL/K												
(N) PFE=(M-1)(10^2)	0	0.8	-0.5	2.0	-0.7	1.0	-1.6	-0.8				
(O) MCF=(M-1)(10^5)/H	0	12	-4	10	-11	10	-10	-3.				
	+15				+16							

HEINRICHS GEOEXPLORATION COMPANY

INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Page_____

Project_____ Line G-1 W/2 Field date_____ Data page_____ Comp. date_____. Comp by_____

(A) Send	4-5	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5		
(B) Receive	0-5W	5-10	—	10-15	—	—	15-20	—	—	—		
(C) n separation												
(D) I	2.0	—	—	—	—	—	—	—	—	→		
(E) Vdc (avg)	1.011											
(F) DCcal	108.	192	44.6	271.	72.0	27.6	285.	78.3	32.7	14.5		
(G) Kn x 10^{-3}	1.5	1.5	6.	1.5	6	15	1.5	6	15	30		
(H) ρ dc=ExFxGx10^3/D	82	146	135	206	218	209	216	237	248	220		
(I) Vac Σ												
(J) AC noise x 2												
(K) Vac(corr) = $\sqrt{I^2 - J^2}$	117.0	208.	49.	290.	78.	29.3	308.	84.	34.7	15.6		
(L) AC-DC cal.	1.111											
(M) ρ dc/ρac=ExL/K												
(N) PFE=(M-1)(10^2)	2.6	2.6	1.0	3.9	2.7	4.8	3.0	3.6	4.8	3.2		
(O) MCF=(M-1)(10^5)/H	31	18	7	19	12	23	14	15	19	15		
	-6	+4		+9			+13					

Project_____ Line_____ Field date_____ Data page_____ Comp. date_____ Comp by_____

(A) Send	1-2	2-3	3-4	4-5	1-2	2-3	3-4	4-5				1-2
(B) Receive	20-25	—	—	—	25-30	—	—	—				C91
(C) n separation												300
(D) I	2.0	—	—	—	—	—	—	→				2.0
(E) Vdc (avg)	130	51.9	24.9	12.7	47.4	23.45	12.26	7.13?				198
(F) DCcal												
(G) Kn x 10^{-3}	6	15	30	52.5	15	30	52.5	84				
(H) ρ dc=ExFxGx10^3/D	394	394	378	337	360	356	325	302				
(I) Vac Σ												
(J) AC noise x 2												
(K) Vac (corr) = $\sqrt{I^2 - J^2}$	141	56	27	13.4	50.4	24.6	12.8	7.05				220
(L) AC-DC cal.	1.111											
(M) ρdc/ρac =ExL/K												
(N) PFE=(M-1)(10^2)	2.5	3.2	2.5	5.2	4.5	5.9	6.2	12.4?				
(O) MCF=(M-1)(10^5)/H	6	8	7	15	13	16	19	41?				
	+8				+5							

HEINRICHS GEOEXPLORATION CO.

I.P. RECEIVER NOTES

PROJECT Hanks

LINE G1 HALF E SP. 1 DATE 3/27

PAGE 1

SEND	1-2	2-3	1-2	3-4	2-3	1-12	4-5	3-4	2-3	1-2
RECEIVE	0-5E	5-10	—	10-15	—	—	15-20			
RANGE	200	100	160	160	30	20	100	30	30	10
DC 1	97.5	555	240	375	151	.90	260	7.2	5.4	5.20
DC 2	97.5	558	230	370	152	1.02	258	8.0	6.0	4.85
DC 3	97.5	550	240	370	150	91	260	7.3	5.4	4.90
DC 4	97.5	557	230	375	153	98	258	7.7	6.0	5.00
DC 5		556	240	375	149	91	260	7.2	5.5	5.00
DC 6		553	230	370	155	101	259	8.0	6.1	5.00
DC 7						91		7.2	5.4	4.6 5.15
DC 8						100		7.8	6.0	4.95 5.10
DC AVG.	195.	110.8	47.0	74.5	30.3	19.1	51.8	15.1	11.4	9.91
AC 1	102	56.8	24.8	40.0	16.2	10.3	27.5	8.0	6.2	5.2
AC 2	102	590	24.8	39.8	16.1	10.2	27.8	7.9	6.1	5.2
AC AVG.	204.	117.8	49.6	79.8	32.3	20.5	55.3	15.9	12.3	10.4
S.P.	+13.4	-0.6		-33			+29			
AC NOISE	0.1	0.1		0.02			.07			
POT RES.										

HEINRICHS GEOEXPLORATION CO.

I.P. RECEIVER NOTES

PROJECT _____

LINE _____ HALF _____ SP. _____ DATE _____

SEND	4-5	3-4	2-3	1-2	4-5	3-4	2-3	1-2		4-5
RECEIVE	20-25				25-30					C91
RANGE	30	10	10	10	10	10	10	10		300
DC 1	8.5	4.80	4.36 4.4	4.0 3.75	4.7 4.2	3.05 2.7	2.9 2.9	2.9 2.95		101
DC 2	9.5	4.55	4.4 4.3	4.05 3.70	4.8 4.2	3.2 2.15	2.75 2.8	2.85 2.80		102
DC 3	8.3 9.5	9.8	4.25 4.3	4.10 3.70	4.8 4.0	3.3 2.60	2.8 2.9	3.0 2.65		102
DC 4	8.5 9.5	9.6	4.35 4.4	4.10 2.65	4.8 4.0	3.35 2.60	2.7 2.85	2.9 2.65		102
DC 5	8.2 9.5	4.80	4.2 4.42	4.25 3.60	4.95 4.15	3.25 2.60	2.5 3.0	2.8 2.95		
DC 6	8.2 9.7	4.50 4.80	4.3 4.35	4.20 3.65	4.9 3.95	3.10 2.65	2.85 3.0	2.9 2.8		
DC 7		4.50 4.7					2.80 3.2	2.7 2.8		
DC 8							2.75 3.25	2.95 2.65		
DC AVG.	17.84	9.325	8.66	7.81	8.915	5.875	5.72	5.632		
AC 1	9.5	4.95	4.65	4.05	4.8	3.1	3.1	3.05		109
AC 2	9.5	4.90	4.60	4.1	4.75	3.1	3.1	3.00		108
AC AVG.	19.0	9.85	9.25	8.15	9.55	6.2	6.2	6.05		217
S.P.	+15				+16					
AC NOISE	.06				.08					
POT RES.										

HEINRICHS GEOEXPLORATION CO.

I.P. RECEIVER NOTES

PROJECT Hank
LINE ____ HALF ____ SP. ____ DATE ____

SEND	4-5	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5
RECEIVE	0-500W	500-1000	—	1000-1500		—	1500-2000		—	
RANGE	100	300	100	300	100	30	300	100	30	30
DC 1	530	94	20	132	39	139 | 140	142	39.5	16.0	74 | 80
DC 2	550	98	24	140	33	135 | 135	143	39.0	168	78 | 64
DC 3	530	94	21.5	130	39	150	142	38.5	158	61 | 84
DC 4	550	98	21.5	140	33	122	143	40.0	169	79 | 70
DC 5	530	94	22	131	35	150		390	158	66 | 76
DC 6	550	98	23.5	140	37	125		390	170	76 | 66
DC 7			22		34.5	138 | 145			159	72 | 78
DC 8			230		37.5	130 | 140			166	72 | 68
DC AVG.	1080	192.	44.6	271	72.0	27.6	285	78.3	32.7	14.5
AC 1	585	104.	24.5	145	39	147	154	42	17.5	7.8
AC 2	585	104	24.5	145	39	146	154	42	17.2	7.8
AC AVG.	1170	208	49.0	290	78	29.3	308.	84.	34.7	15.6
S.P.	-6	+4		+9			+13			
AC NOISE	.12	0.18		0.2			0.2			
POT RES.										

HEINRICHS GEOEXPLORATION CO.

I.P. RECEIVER NOTES

PROJECT _____

LINE G1 HALF W SP. ____ DATE ____

PAGE

SEND	1-2	2-3	3-4	4-5	1-2	2-3	3-4	4-5		1-2
RECEIVE	2000-2500				25000-3000					Cal
RANGE	300	100	30	10	100	30	10	10		300
DC 1	64	24	125	5.8 / 5.2	23	126	6.1 6.6	3.1		100
DC 2	67	28	130	6.9 / 7.2	24.5	110	6.05 5.9	4.1		98
DC 3	63	24	120	5.8 / 6.0	23	122	6.08 6.4	3.75		100
DC 4	67	28	125	7.0 / 7.0	25	113	6.18 5.8	3.85		98
DC 5	63	23.9	122	6.0	22.5	120	6.20 6.3	3.6		100
DC 6		28	128	7.1	24.5	122	6.0 6.0	3.4		98
DC 7		23.8	122	5.5	22.5	114	6.4	3.15		
DC 8		27.8	125	6.8	25.0	114	5.9	3.45		
DC AVG.	130.	51.9	24.9	12.7	47.4	23.95	12.26	7.13		198
AC 1	71.0	28.	13.5	6.7	25.5	12.4	6.4	3.55		110
AC 2	70.0	28.	13.5	6.7	25.0	12.2	6.4	3.50		110
AC AVG.	141.	56.	27.	13.4	50.5	24.6	12.8	7.05		220
S.P.	+8				+5					
AC NOISE	0.2				0.2					
POT RES.										

INDUCED POLARIZATION SENDER NOTES

project: HANKS Line: G-1 Date: 27 MARCH

Send	1-2	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2		
Receive	—	—	—	—	—	—	—	—	—	—		
Time Amp	2.0	2.0	✓	2.0	✓	✓	2.0	✓	✓	✓		
Range	0-500	500 —	1000	1000	—	1500	1500	—	—	— 2000		
Current											CAL	
Send	4-5	3-4	2-3	1-2		4-5	3-4	2-3	1-2		4-5	
Receive	—	—	—	—		—	—	—	—			
Time	✓	✓	✓	✓		✓	✓	✓	✓		2.0	
Range	2000 —		2500			2500	—	—	— 3000		1000	
Current												

INDUCED POLARIZATION SENDER NOTES

Project: HANKS Line: Date:

Send	4-5	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5		
Receive	0-500	500 —	1000	1000 —		1500	1500	—	—	2000		
Time	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Range	2.0	2.0		2.0			2.0					
Current											CAL	
Send	1-2	2-3	3-4	4-5		1-2	2-3	3-4	4-5		1-2	
Receive	2000	—	—	2500		2500	—	—	3000		1000	
Time	✓	✓	✓	✓		✓	✓	✓	✓		✓	
Range											2.0	
Current												

April 1, 1968

Mr. Ted Hanks
C/O Earl Rogers
Oracle Junction Trailer Park
Oracle Star Route
Tucson, Arizona

Re: Job #244-68

Dear Mr. Hanks:

Enclosed are Owl Head data sheets, which in conjunction with this letter will complete the work requested. Also enclosed is our final billing on this job.

The following is a brief summary of the discussion we had on March 30, 1968.

Line G1

What appears to be a gradational interface or a gently dipping interface is seen at about 250 west of center. This is interpreted as the contact of the volcanics and Pinal Schist.

The Pinal Schist has a background of about 3 PFE as opposed to about 1 in the volcanics. There appears to be a valid anomaly beginning near 15 west, and continuing off our survey. The depth and location of mineralization is uncertain due to incomplete data. It could be as much as 500 feet deep if its true location is at 17.5 west. However, because schist outcrops over much of the west half of the line, we believe that the source of the anomaly is near surface at about 25 west.

Magnetite may be responsible for the higher background PFE's in the schist and also the anomaly at 25 west. At least there is no hint that there is a lower resistivity media to

the west that might indicate sulfide mineralization.

Line G2

Indicates the Pinal Schist-volcanic contact near 0 E/W .

There are very weak polarization effects near 0 E/W possibly associated with the schist contact. The background PFE's remain about the same across the entire line.

Another very weak anomaly appears at 17.5E and continues off the survey.

Line G3

Is very nearly identical to Line G1 and the same comments apply.

Generally speaking, the data is of good quality except perhaps the "n=6" separation readings. Telluric noise was low and no equipment problems were experienced.

It may be desireable to extend Line G1 to the west and Line G2 to the east at some future date to fully define those anomalies.

Sincerely yours,

HEINRICHS GEOEXPLORATION COMPANY

Paul A. Head
Geophysicist

PAH:jc
Enclosure