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Arizona Geological Survey
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inquiries@azgs.az.gov

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HEINRICHS GEOEXPLORATION COMPANY

806 WEST GRANT ROAD, TUCSON, ARIZONA, 85703. P.O. BOX 5671. PHONE: (AREA CODE 602) 623-0578

November 12, 1968

Mr. W. F. Dix, Manager
Gunnex, Ltd.
80 Richmond Street West
Suite 1707
Toronto, Canada

Dear Mr. Dix,

This is a letter report covering the induced polarization survey in the Hackberry Area, Mohave County, Arizona, requested by Dr. John Walker and Bill Peterson. The three spreads of 500 feet dipoles are not presented in plan as we have no adequate base map on which to plot them. In this instance it is not critical because the lines are too far apart to make positive correlations and therefore, no effort has been expended to create a plan map.

As usual, energizing current at 3.0 and 0.05 Hz was employed where electromagnetic coupling and telluric noise are no problem. Each spread effectively probed the zone between about 100 and 700 feet deep. A total surface coverage of 18,000 lineal feet and 10,500 lineal feet of n=3 subsurface data was obtained.

The field crew used was Mr. Don Berglind, Crew chief; Mr. Bill Rasmussen, sender operator; and Mr. Chris Dahlberg, field technician. The Geophysicist in charge was Mr. Paul Head.

The result of the survey is somewhat inconclusive because the anomalies detected are very weak and probably represent quite small bodies very near surface. To check this out a bit more, geologic assistance is needed and if sufficiently favorable, this might be followed by a few 100 foot dipole spreads if the geology so indicates. No drilling can be recommended based on the results covered solely in this letter report.

The following is the detailed line by line interpretation:

Line 1, Spread 1, a = 500 feet

A very weak and questionable I. P. anomaly is noted between station 10 to 15 NE, apparently associated with either a narrow high resistivity body or an interface in the vicinity of 12.5 or 15 NE. No S.P. correlations or noted.

Line 2, Spread 1, a = 500 feet

The overall background PFE and MCF values are higher on Line 2 than on Line 1, probably having to do with a slight increase sulphide mineralization, clay, or magnetite in the rocks. From 5 to 15 SW a very weak and questionable PFE anomaly is indicated which seems to be a very near surface effect. No S.P. correlation is noted.

An interface at 20 NE is indicated that has the same characterics as that noted on Line 1. The distance between these lines precludes correlating these interfaces as the same geologic feature.

Line 3, Spread 1, a = 500 feet

Line three has two possible areas of anomalous frequency effects. The anomaly at 5 to 10 SW is very weak and questionable but based on its MCF values seems a bit better than the anomaly between stations 5 and 10 NE. The resistivity plot indicates that the geology in the vicinity of 10 NE is fairly complex, possibly including steeply dipping low and high resistivity formations. Therefore, the PFE anomaly at 10 NE is more apt to be of interest due to this complexity alone.

Sincerely,

HEINRICHS GEOEXPLORATION COMPANY

Paul A. Head
Paul A. Head by R Chandler
Geophysicist

APPROVED: Walter E. Heinrichs, Jr.
President & General Manager

Registered Professional Engineer
CERTIFICATE EXPIRES
WALTER E. HEINRICHS, JR.
DEC. 31, 1968
ARIZONA, U. S. A.

GENERAL LOCATION
of
HACKBERRY AREA
for
GUNNEX LIMITED

ARIZONA

HEINRICHS
GEOEXPLORATION COMPANY
GEOPHYSICAL ENGINEERS
BOX 5671 TUCSON, ARIZONA 85703
PH: 602/623-0578 CABLE: GEOEX, TUCSON
SYDNEY VANCOUVER

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An interface at 20 NE is indicated that has the same characterics as that noted on Line 1. The distance between these lines precludes correlating these interfaces as the same geologic feature.

Line 3, Spread 1, a = 500 feet

Line three has two possible areas of anomalous frequency effects. The anomaly at 5 to 10 SW is very weak and questionable but based on its MCF values seems a bit better than the anomaly between stations 5 and 10 NE. The resistivity plot indicates that the geology in the vicinity of 10 NE is fairly complex, possibly including steeply dipping low and high resistivity formations. Therefore, the PFE anomaly at 10 NE is more apt to be of interest due to this complexity alone.

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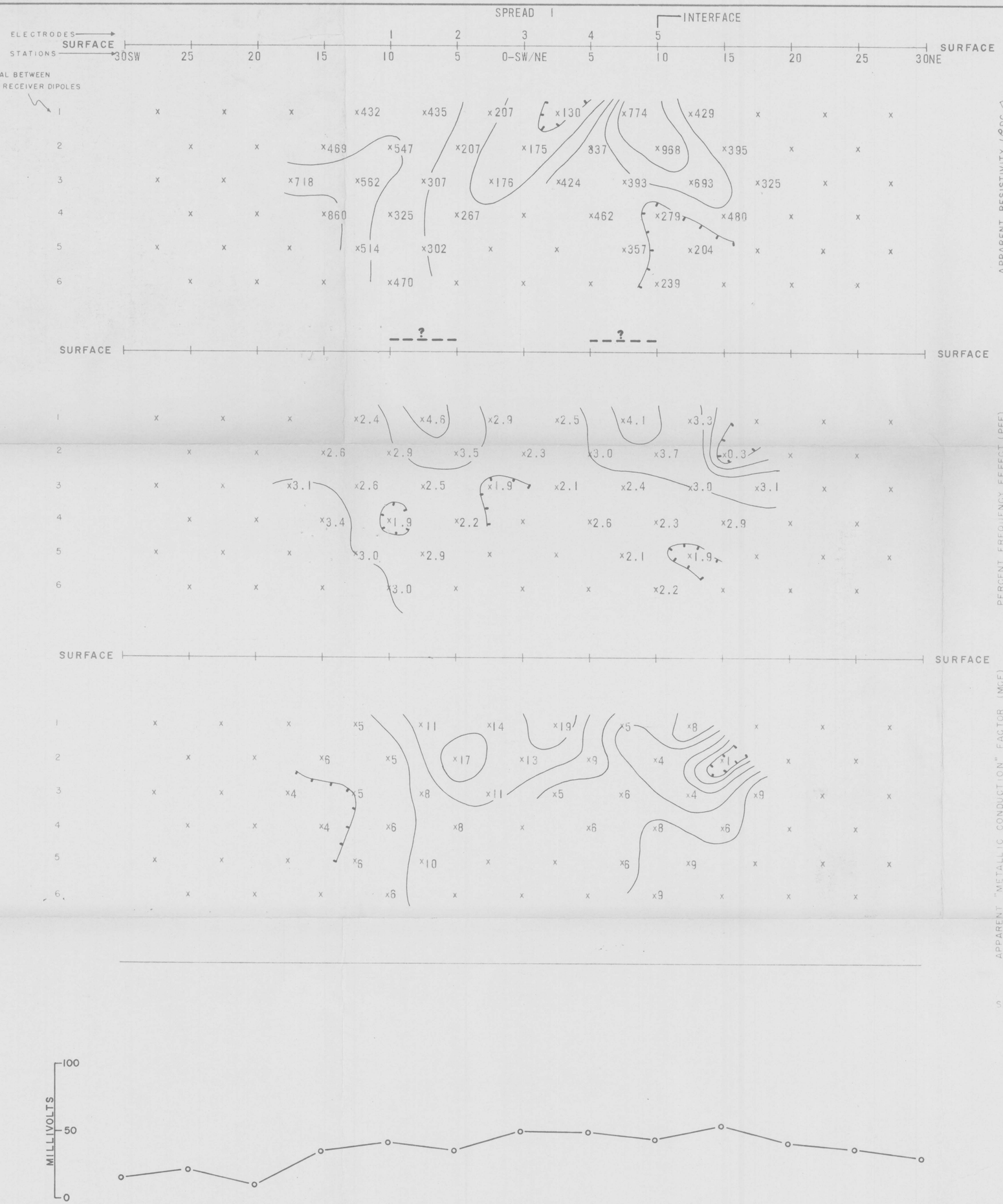
HEINRICHS GEOEXPLORATION COMPANY

Paul A. Head
Geophysicist

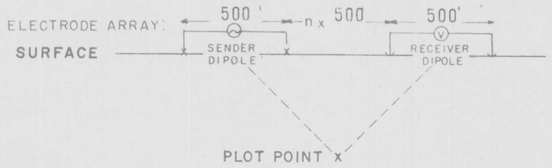
APPROVED:

Walter H. Heinrichs, Jr.
President & General Manager

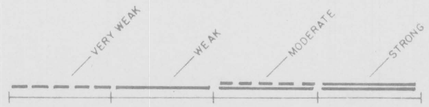
Registered Professional Engineer (Mining)
CERTIFICATE EXPIRES
WALTER H. HEINRICHS, JR.
DEC. 31, 1968
ARIZONA, U. S. A.



EXPLANATION



RELATIVE ANOMALY STRENGTH



LOOKING N 35° W

HACKBERRY AREA

SECTIONAL DATA SHEET

LINE NO. 3 (SPREAD 1)

INDUCED POLARIZATION TRAVERSE

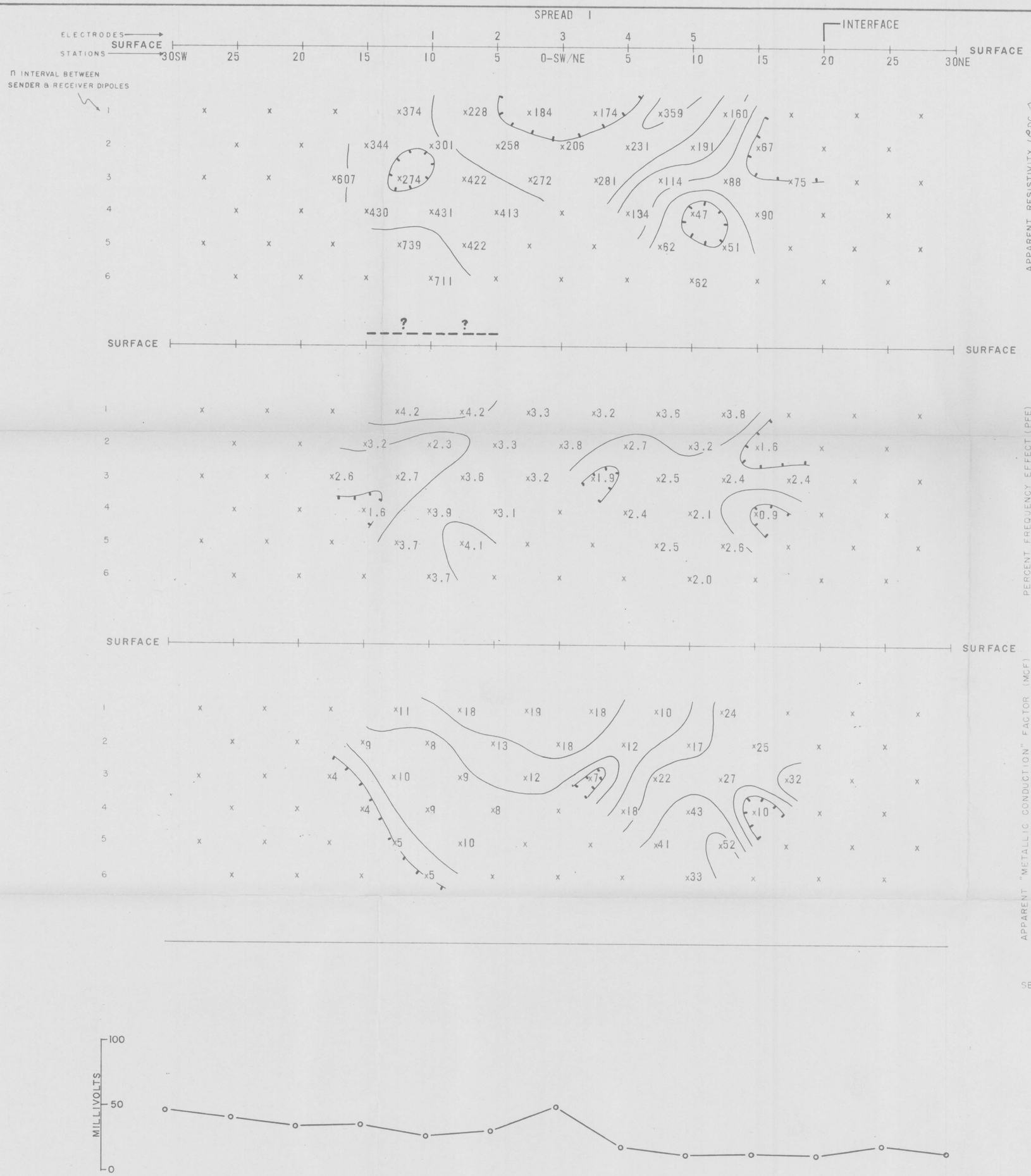
HEINRICHS GEOEXPLORATION COMPANY

SCALE: 1" = 500' DATE: SEP 1968

FOR

GUNNEX LIMITED

HEINRICHS
GEOEXPLORATION COMPANY
POST OFFICE BOX 5671, TUCSON, ARIZONA, 85703
Phone: 602/623-0578 Cable: GEOEX, Tucson
geophysical engineers
vancouver
sydney



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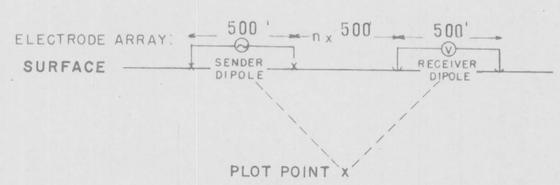
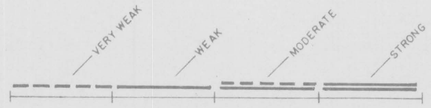


RELATIVE ANOMALY STRENGTH



LOOKING N 35° W

HACKBERRY AREA

SECTIONAL DATA SHEET

LINE NO. 2 (SPREAD I)

INDUCED POLARIZATION TRAVERSE

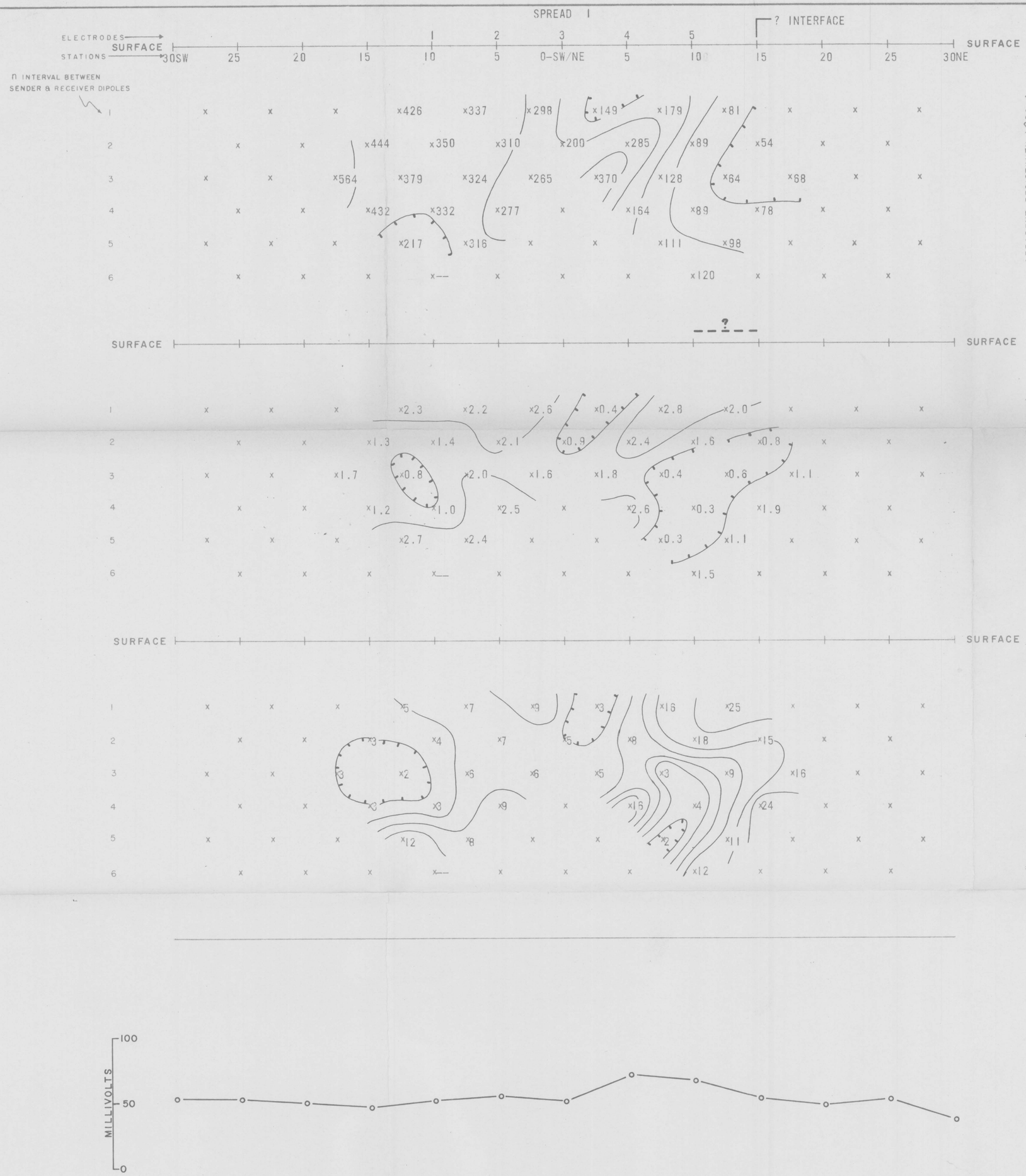
HEINRICHS GEOEXPLORATION COMPANY

SCALE: 1" = 500' DATE: SEP 1968

FOR

GUNNEX LIMITED

HEINRICHS
GEOEXPLORATION COMPANY
POST OFFICE BOX 5671, TUCSON, ARIZONA, 85703
Phone: 602/623-0578 Cable: GEOEX, Tucson
geophysical engineers
vancouver
sydney



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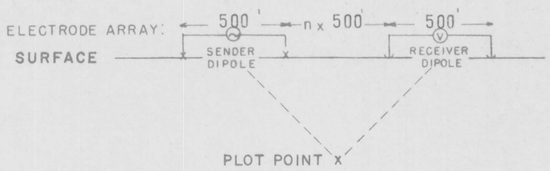

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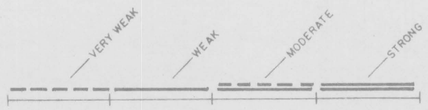

LOOKING N 35° W

HACKBERRY AREA

SECTIONAL DATA SHEET

LINE NO. 1 (SPREAD 1)

INDUCED POLARIZATION TRAVERSE

HEINRICHS GEOEXPLORATION COMPANY

SCALE: 1" = 500' DATE: SEP 1968

FOR

GUNNEX LIMITED

File

HEINRICHS GEOEXPLORATION COMPANY
geophysical engineers
POST OFFICE BOX 5671, TUCSON, ARIZONA, 85703
Phone: 602/623-0578 Cable: GEOEX, Tucson
vancouver sydney

Gunnex 3.0 Hz

HEINRICHS GEOEX B270-68 LINE HACKBERRY 2 SPD 1 LOOKING N35W 9-25-68 A= 500 FEET

1.000	1.000	1.000	2.000	1.000	1.000	2.000	2.000	1.000	1.000	I	2.000	2.000	1.000	1.000	2.000	2.000	1.000	1.000	1.000		
115	119	336	301	422	182	489	990	277	136	DC	115	361	141	780	800	282	139	827	100	LEFT	
112	120	337	301	431	179	499	995	280	135		112	360	144	823	803	285	140	840	98	SIDE	
					180			280	138			364	142	/			138	839			
					179			277	134			357	142	799			141	846			
					179			280	139			367	143	780			138	836			
					181			279	133			356	141	818			141	843			
					174			279	140			369	144	800			138	830			
					188			276	132			352	140	777			141	845			
												373		804				829			
												349		781				844			
														816				830			
														770				848			
														804				829			
														814				841			
														/				831			
														800				846			
														758							
														839							

1	1	2	1	2	3	1	2	3	4	N	2	3	4	5	3	4	5	6		
113.5	119.5	33.65	301.0	42.65	17.96	494.0	99.25	27.88	13.61	DCA	113.5	36.14	14.24	7.950	80.15	28.35	13.94	8.378	99.00	
110.0	115.0	32.10	289.0	41.30	17.40	474.0	97.00	26.90	13.20	AC1	110.0	35.20	13.70	7.640	77.90	27.90	13.50	8.090	99.00	
110.0	115.0	32.10	289.0	41.30	17.40	474.0	97.00	26.90	13.20	AC2	110.0	35.20	13.70	7.630	78.40	27.90	13.40	8.070	99.00	
110.0	115.0	32.10	289.0	41.30	17.40	474.0	97.00	26.90	13.20	ACA	110.0	35.20	13.70	7.635	78.15	27.90	13.45	8.080	99.00	
172.0	181.1	203.9	228.0	258.5	272.1	374.2	300.8	422.4	412.6	RHO	343.9	273.8	431.4	421.6	607.2	429.5	739.4	710.9	1.010	DC CAL
3.2	3.9	4.8	4.2	3.3	3.2	4.2	2.3	3.6	3.1	PFE	3.2	2.7	3.9	4.1	2.6	1.6	3.7	3.7	1.000	AC CAL
19	22	24	18	13	12	11	8	9	8	MCF	9	10	9	10	4	4	5	5		

2.000	2.000	2.000	1.000	2.000	2.000	1.000	1.000	2.000	2.000	I	1.000	1.000	2.000	2.000	1.000	1.000	2.000	2.000	1.000		
243	23	69	24	759	365	105	315	151	875	DC	110	572	314	230	490	300	194	146	990	RIGHT	
246	23	68	23	761	370	106	315	148	875		111	586	303	235	499	298	190	147	975	SIDE	
				750		104	310	150	890		109	561	318	228	474	300	183	136			
				761		106	318	148	860		111	601	304	230	506	310	193	150			
				750		104	309	151	890		109	/	320	235	/	286	189	138			
				761			319	149	865		112	580	295	229	488	307	199	153			
				759			307	150	870		108	579	/	237	501	284	183	144			
				760			319	149	895			573	307	219	465	321	200	141			
								150				589	314	/	520	/	178	143			
								150				571	299	232	/	299	/	150			
												587	320	234	482	248	198	144			
												568	304	224	500	299	189	145			
												587	322	232	479	305	198	142			
												581		228	509	298	186	145			
												576		240	462	304	197	149			
															/	/	184	140			
															487	312	204				
																287					

1	1	2	1	2	3	1	2	3	4	N	2	3	4	5	3	4	5	6		
244.5	230.0	68.50	235.0	75.74	36.75	105.1	31.36	14.95	8.764	DCA	11.02	5.789	3.101	2.310	4.901	2.959	1.913	1.447	98.25	
235.0	220.0	65.80	224.0	72.80	35.60	100.0	30.00	14.40	8.450	AC1	10.70	5.580	3.000	2.230	4.720	2.900	1.840	1.400	97.00	
235.0	220.0	65.80	224.0	72.80	35.60	100.0	30.00	14.40	8.450	AC2	10.70	5.580	3.000	2.220	4.730	2.890	1.840	1.400	97.00	
235.0	220.0	65.80	224.0	72.80	35.60	100.0	30.00	14.40	8.450	ACA	10.70	5.580	3.000	2.225	4.725	2.895	1.840	1.400	97.00	
186.6	175.6	209.2	358.8	231.3	280.5	160.5	191.5	114.1	133.8	RHO	67.28	88.38	47.34	61.73	74.82	90.35	51.11	61.84	1.018	DC CAL
2.7	3.2	2.8	3.6	2.7	1.9	3.8	3.2	2.5	2.4	PFE	1.6	2.4	2.1	2.5	2.4	.9	2.6	2.0	.987	AC CAL
15	18	13	10	12	7	24	17	22	18	MCF	25	27	43	41	32	10	52	33		

PRINTED IN U.S.A.
BL/287

JOB 270-68 LINE HACKBERRY 2 SPREAD 1

LOOKING N 35 W DATE 9/25/68 A= 500

CENTER 0.0 LABEL SW/NE FREQ. 3.0

COUPLING yes

Z

9.30.68
OS

HEINRICHS GEOEXPLORATION CO.

I.P. RECEIVER NOTES

PROJECT GUNNEX HACKBERRY

LINE 2 HALF S 55W SP. 1 DATE 9/25/68

PAGE 1

SEND	4 5	3 4	4 5	2 3	3 4	4 5	1 2	2 3	3 4	4 5
RECEIVE	0-5 SW	5-10 SW		10-15 SW			15-20 SW			
RANGE	300	300	100	1000	100	30	1000	300	100	30
DC 1	115 112	119 120	336 337	301 301	422 431	182 179	489 499	990 995	277 280	136 135
DC 2	115 112	119 120	336 337	301 301	422 431	180 179	489 499	990 995	280 277	138 134
DC 3						179 181			280 279	139 133
DC 4						174 188			279 276	140 132
DC 5										
DC 6										
DC 7										
DC 8										
DC AVG.										
AC 1	110	115	32.1	289	41.3	17.4	474	97.0	26.9	13.2
AC 2	110	115	32.1	289	41.3	17.4	474	97.0	26.9	13.2
AC AVG.										
S.P.	-18	-4		+8			-1			
AC NOISE	.05	.06		.07			.08			
POT RES.	6K	4K		4K			4.5			

HEINRICHS GEOEXPLORATION CO.

I.P. RECEIVER NOTES

PROJECT GUNNEX HACKBERRY

LINE 2 HALF 555W SP. 1 DATE 9/25/68

PAGE 2

SEND	1 2	2 3	3 4	4 5	1 2	2 3	3 4	4 5		CAL
RECEIVE	20-25SW				25-30SW					2 3
RANGE	300	100	30	10	100	100	30	10		300
DC 1	115 112	361 360	141 144	780 823	800 803	282 285	139 140	829 846		100 980
DC 2	115 112	364 357	142 142	799 780	800 803	282 285	138 141	839 846		100 980
DC 3		367 356	143 141	818 800			138 141	836 843		
DC 4		369 352	144 140	777 804			138 141	830 845		
DC 5		373 349		781 816				829 844		
DC 6				770 804				830 842		
DC 7				814 800				829 841		
DC 8				758 839				831 846		
DC AVG.										
AC 1	110	35.2	13.7	7.64	77.9	27.9	13.5	8.09		99.0
AC 2	110	35.2	13.7	7.63	78.4	27.9	13.4	8.07		99.0
AC AVG.										
S.P.	+7				+5					
AC NOISE	.05				.07					
POT RES.	8K				5K					

HEINRICHS GEOEXPLORATION CO.

I. P. SENDER NOTES

PROJECT Hack Berry
LINE 2 HALF SW SP. 1 DATE 8/25/78

SEND	4-5	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5
RECEIVE	→	→	→	→	→	→	→	→	→	→
RANGE										
VOLTAGE	134x4	86x4	132x4	112x4	86x4	135x4	113x4	112x4	87x4	131x4
CURRENT	1.0	1.0	1.0	2.0	1.0	1.0	2.0	2.0	1.0	1.0
SEND	1-2	2-3	3-4	4-5	1-2	2-3	3-4	4-5		Cal.
RECEIVE	→	→	→	→	→	→	→	→		2-3
RANGE										
VOLTAGE	111x4	111x4	86x4	133x4	110x4	110x4	85x4	131x4		58x4
CURRENT	2.0	2.0	1.0	1.0	2.0	2.0	1.0	1.0		1.0

FREQUENCIES .05 3.0
SENDER NO. ~~10661 R~~ 1
OPERATOR B. Rasmussen
RECEIVER NO. 10661 R
OPERATOR Don B.

COMMENTS:

HEINRICHS GEOEXPLORATION CO.
I.P. RECEIVER NOTES

PROJECT GUNNEX HACKBERRY
LINE 2 HALF NESE SP. 1 DATE 9/24/68

SEND	1 2	2 3	1 2	3 4	2 3	1 2	4 5	3 4	2 3	1 2
RECEIVE	0-5 NE	5-10 NE		10-15 NE			15-20 NE			
RANGE	300	300	100	300	100	100	300	100	30	30
DC 1	243 246	230 230	690 680	240 230	759 761	365 370	105 106	315 315	151 148	875 875
DC 2	243 246	230 230	690 680	240 230	750 761	365 370	104 106	310 318	150 148	890 860
DC 3					760 761		104	309 319	151 149	890 865
DC 4					759 760			307 319	150 149	870 895
DC 5									150 150	
DC 6										
DC 7										
DC 8										
DC AVG.										
AC 1	235	220	65.8	224	72.8	35.6	100	30.0	14.4	8.45
AC 2	235	220	65.8	224	72.8	35.6	100	30.0	14.4	8.45
AC AVG.										
S.P.	-30	-6		+1			-1			
AC NOISE	.10	.07		.08			.05			
POT RES.	6K	4.5K		5K			2.5			

HEINRICHS GEOEXPLORATION CO.
I.P. RECEIVER NOTES

PROJECT GUNNEX HACKBERRY
LINE 2 HALF N55E SP. 1 DATE 8/24/68

SEND	4 5	3 4	2 3	1 2	4 5	3 4	2 3	1 2		CAL
RECEIVE	20-25NE				25-30NE					3 4
RANGE	30	10	10	3	10	10	3	3		300
DC 1	110 111	572 586	314 303	230 235	490 499	300 298	194 190	146 147		990 975
DC 2	109 111	561 601	318 304	228 230	474 506	300 310	183 193	136 150		990 975
DC 3	109 112	580 579	320 295	235 229	488 501	286 307	189 199	138 153		
DC 4	108	573 589	307 314	237 219	465 529	284 321	183 200	144 141		
DC 5		571 587	299 320	232 234	482 500	299 298	178 198	143 150		
DC 6		568 587	304 322	224 232	479 509	299 305	189 198	144 145		
DC 7		581 576		228 240	462 487	298 304	186 197	142 145		
DC 8						312 287	184 204	149 140		
DC AVG.										
AC 1	10.7	5.58	3.00	2.23	4.72	2.90	1.84	1.40		97.0
AC 2	10.7	5.58	3.00	2.22	4.73	2.89	1.84	1.40		97.0
AC AVG.										
S.P.	+7				-5					
AC NOISE	.05				.04					
POT RES.	1K				2K					

HEINRICHS GEOEXPLORATION CO.

I. P. SENDER NOTES

PROJECT Hack Berry
LINE 2 HALF NE SP. 1 DATE 9/24/69

SEND	1-2	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2
RECEIVE	→	→	→	→	→	→	→	→	→	→
RANGE	5									
VOLTAGE	113x4	113x4	114x4	87x4	110x4	114x4	138x4	87x4	111x4	113x4
CURRENT	2.0	2.0	2.0	1.0	2.0	2.0	1.0	1.0	2.0	2.0
SEND	4-5	3-4	2-3	1-2	4-5	3-4	2-3	1-2		Cal
RECEIVE	—	—	—	→	—	—	—	→		3-4
RANGE										
VOLTAGE	138x4	88x4	111x4	112x4	135x4	87x4	111x4	112x4		89x4
CURRENT	1.0	1.0	2.0	2.0	1.0	1.0	2.0	2.0		1.0

FREQUENCIES .05 3.0
SENDER NO. 1
OPERATOR B. Rasmussen
RECEIVER NO. 10661 R
OPERATOR Don. B.

COMMENTS:

JOB 270 - 68 LINE HACKBERRY 3 SPREAD 1

LOOKING N 35 W DATE 9/26/68 A= 500

CENTER 0.0 LABEL SW/NE FREQ. 3.0

COUPLING YES 1

30 Sep 68
RC

HEINRICHS GEOEXPLORATION CO.
I.P. RECEIVER NOTES

PROJECT GUNNEX HACKBERRY
LINE 3 HALF S 55W SP. 1 DATE 9/26/62

PAGE 1

SEND	4 5	3 4	4 5	2 3	3 4	4 5	1 2	2 3	3 4	4 5
RECEIVE	0-5SW	5-10SW		10-15SW			15-20SW			
RANGE	300	300	100	300	100	30	1000	300	30	10
DC 1	830 852	139 136	286 285	286 287	342 341	116 116	286 283	900 900	201 203	860 899
DC 2	830 852	138 136	286 285	286 287	342 341	117 115	286 283	900 900	202 203	842/871
DC 3									202 203	861 860
DC 4										878 865
DC 5										884 859
DC 6										884 874
DC 7										880 873
DC 8										881 882
DC AVG.										
AC 1	80.9	131.	27.8	269.	32.4	11.2	273.	85.9	19.4	8.43
AC 2	80.9	131.	27.8	269.	32.4	11.2	273.	85.9	19.4	8.44
AC AVG.										
S.P.	-14	+6		-7			-25			
AC NOISE	.07	.07		.08			.09			
POT RES.	4k	2k		1k			2k			

HEINRICHS GEOEXPLORATION CO.

I.P. RECEIVER NOTES

PROJECT GUNNEX HACKBERRY

LINE 3 HALF 555W SP. 1 DATE 9/24/68

PAGE 2

SEND	1 2	2 3	3 4	4 5	1 2	2 3	3 4	4 5		CAL
RECEIVE	20-25SW				25-30 SW					2 3
RANGE	100	100	30	10	100	100	30	10		300
DC 1	761 781	368 372	106 107	579 553	477 468	282 284	960 975	536 562		995 980
DC 2	759 784	368 370	105 108	575 559	477 468	284 282	960 979	553 556		995 980
DC 3	756 787	370 370	104 110	575 564		283 283	950 979	551 551		
DC 4	755 791		104 112	572 565			950 990	561 542		
DC 5	753 796		102 113	576 572			950 990	570 532		
DC 6			100 114	572 563				568 527		
DC 7				581 559				554 553		
DC 8				577 561				554 541		
DC AVG.										
AC 1	73.9	35.4	10.3	5.43	45.0	26.9	9.23	5.27		97.0
AC 2	73.8	35.4	10.3	5.43	45.0	26.9	9.22	5.27		97.0
AC AVG.										
S.P.	+12				-7					
AC NOISE	.09				.09					
POT RES.	2K				1K					

HEINRICHS GEOEXPLORATION CO.

I. P. SENDER NOTES

PROJECT Hackberry
LINE 3 HALF SW SP. 1 DATE 9/24/68

SEND	4-5	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5
RECEIVE	→	→	→	→	→	→	→	→	→	→
RANGE										
VOLTAGE	141x4	108x4	138x4	127x4	110x4	142x4	114x4	129x4	110x4	140x4
CURRENT	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
SEND	1-2	2-3	3-4	4-5	1-2	2-3	3-4	4-5		Cal.
RECEIVE	→	→	→	→	→	→	→	→		
RANGE										
VOLTAGE	114x4	124x4	106x4	139x4	112x4	127x4	107x4	139x4		129x4
CURRENT	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0

FREQUENCIES .05 3.0

SENDER NO. 1

OPERATOR B. Rasmussen

RECEIVER NO. 10661-R

OPERATOR Don B.

COMMENTS:

HEINRICHS GEOEXPLORATION CO.

I.P. RECEIVER NOTES

PROJECT GUNNEX MACKBERRY

LINE 3 HALF N55E SP. 1 DATE 9/26/68

SEND	1 2	2 3	1 2	3 4	2 3	1 2	4 5	3 4	2 3	1 2
RECEIVE	0-5NE	5-10NE		10-15NE			15-20NE			
RANGE	300	300	100	1000	100	100	1000	300	30	30
DC 1	140 135	880 855	294 298	508 519	559 559	280 283	289 280	160 161	260 261	153 154
DC 2	140 135	880 855	294 298	508 519	559 559	280 281	289 280	160 161	260 261	152 155
DC 3						280 282				151 154
DC 4						280 284				153
DC 5										
DC 6										
DC 7										
DC 8										
DC AVG.										
AC 1	133.	84.0	28.4	49.1.	54.0	27.4	27.4.	15.4.	25.3	14.8
AC 2	133.	84.0	28.4	49.1.	54.0	27.4	27.4.	15.4.	25.3	14.9
AC AVG.										
S.P.	-1	-5		+10			-13			
AC NOISE	.07	.08		.09			.08			
POT RES.	3K	3K		9K			8K			

HEINRICHS GEOEXPLORATION CO.
I.P. RECEIVER NOTES

PROJECT HACKBERRY GUNNEY
LINE 3 HALF N55E SP. 1 DATE 9/26/68

SEND	4 5	3 4	2 3	1 2	4 5	3 4	2 3	1 2		CAL
RECEIVE	20-25NE				25-30NE					3 4
RANGE	100	100	30	10	30	30	10	10		300
DC 1	661 677	460 460	935 920	682 671	215 216	158 160	286 386	280 291		990 100
DC 2	664 676	459 461	925 930	672 682	215 216	159 160	387 385	279 282		990 100
DC 3	665 673	458 462	910 940	665 686		158 160	393 380	289 281		
DC 4	665 673		910 950	657 696			384 379	281 282		
DC 5				659 718			395 378	281 281		
DC 6				669 680			398 380			
DC 7				664 689						
DC 8										
DC AVG.										
AC 1	65.0	44.4	9.00	6.59	20.8	15.4	3.78	2.75		99.0
AC 2	65.0	44.4	9.00	6.59	20.8	15.4	3.76	2.76		99.0
AC AVG.										
S.P.	-4				-7					
AC NOISE	.07				.05					
POT RES.	3K				2.5					

HEINRICHS GEOEXPLORATION CO.

I. P. SENDER NOTES

PROJECT Hack Berry
LINE 3 HALF NE SP. 1 DATE 9/24/08

SEND	1-2	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2
RECEIVE	→	→	→	→	→	→	→	→	→	→
RANGE										
VOLTAGE	123X4	135X4	120X4	115X4	135X4	120X4	150X4	113X4	134X4	120X4
CURRENT	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
SEND	4-5	3-4	2-3	1-2	4-5	3-4	2-3	1-2		Cal
RECEIVE	→	→	→	→	→	→	→	→		
RANGE										3-4
VOLTAGE	147X4	115X4	131X4	120X4	143X4	111X4	130X4	117X4		118X4
CURRENT	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0

FREQUENCIES .05 3.0
SENDER NO. 1
OPERATOR B. Rasmussen
RECEIVER NO. 1061-R
OPERATOR Don. B.

COMMENTS:

Gunnex 3.0 Hz

HEINRICHS GEOEX 8270-68 LINE HACKBERRY 3 SPD 1 LOOKING N35W 9-26-68 A= 500 FEET

1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	I	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
830	139	286	286	342	116	286	900	201	860	DC	761	368	106	579	477	282	960	536	995	LEFT
852	136	285	287	341	116	283	900	203	899		781	372	107	553	468	284	975	562	980	SIDE
	138	286			117			202	842		759	368	105	575	477	284	960	553		
	136	285			115			203	/		784	370	108	559	468	282	979	556		
								202	871		756	370	104	575		283	950	551		
								203	901		787	370	110	564		283	979	551		
									860		755		104	572			950	561		
									899		791		112	565			990	542		
									865		753		102	576			950	570		
									884		796		113	572			990	532		
									859				100	572				568		
									884				114	563				522		
									874					581				/		
									880					559				554		
									873					577				553		
									881					561				554		
									882									549		
1	1	2	1	2	3	1	2	3	4	N	2	3	4	5	3	4	5	6		
84.10	137.2	28.55	286.5	34.15	11.62	284.5	90.00	20.24	8.776	DCA	77.16	36.98	10.68	5.689	47.25	28.31	9.676	5.524	98.75	
80.90	131.0	27.80	269.0	32.40	11.20	273.0	85.90	19.40	8.430	AC1	73.90	35.40	10.30	5.430	45.00	26.90	9.230	5.270	97.00	
80.90	131.0	27.80	269.0	32.40	11.20	273.0	85.90	19.40	8.440	AC2	73.80	35.40	10.30	5.430	45.00	26.90	9.220	5.270	97.00	
80.90	131.0	27.80	269.0	32.40	11.20	273.0	85.90	19.40	8.435	ACA	73.85	35.40	10.30	5.430	45.00	26.90	9.225	5.270	97.00	
127.7	208.4	173.5	435.2	207.5	176.5	432.2	546.8	307.4	266.6	RHO	468.8	561.7	324.5	302.4	717.7	860.1	514.4	469.9	1.013	DC CAL
2.1	2.9	.9	4.6	3.5	1.9	2.4	2.9	2.5	2.2	PFE	2.6	2.6	1.9	2.9	3.1	3.4	3.0	3.0	.982	AC CAL
17	14	5	11	17	11	5	5	8	8	MCF	6	5	6	10	4	4	6	6		

1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	I	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
140	880	294	508	559	280	289	160	260	153	DC	661	460	935	682	215	158	386	280	990	RIGHT
135	855	298	519	559	283	280	161	261	154		677	460	920	671	216	160	386	291	1000	SIDE
					280				152		664	459	925	672		159	387	279		
					281				155		676	461	930	682		160	385	282		
					280				151		665	458	910	665		158	393	289		
					282				154		673	462	940	686		160	380	281		
					280				153		565		910	657			384	281		
					284						673		950	696			379	282		
														659			395	281		
														718			378	281		
														/			398			
														669			380			
														680						
														664						
														689						
1	1	2	1	2	3	1	2	3	4	N	2	3	4	5	3	4	5	6		
137.5	86.75	29.60	513.5	55.90	28.11	284.5	160.5	26.05	15.32	DCA	65.53	45.98	9.254	6.759	21.55	15.92	3.862	2.829	99.50	
133.0	84.00	28.40	491.0	54.00	27.40	274.0	154.0	25.30	14.80	AC1	65.00	44.40	9.000	6.590	20.80	15.40	3.780	2.750	99.00	
133.0	84.00	28.40	491.0	54.00	27.40	274.0	154.0	25.30	14.90	AC2	65.00	44.40	9.000	6.590	20.80	15.40	3.760	2.760	99.00	
133.0	84.00	28.40	491.0	54.00	27.40	274.0	154.0	25.30	14.85	ACA	65.00	44.40	9.000	6.590	20.80	15.40	3.770	2.755	99.00	
207.3	130.8	178.5	774.1	337.1	423.8	428.9	967.8	392.7	461.8	RHO	395.1	693.2	279.0	356.6	324.9	480.0	203.8	238.9	1.005	DC CAL
2.9	2.8	3.7	4.1	3.0	2.1	3.3	3.7	2.4	2.6	PFE	.3	3.0	2.3	2.1	3.1	2.9	1.9	2.2	.995	AC CAL
14	21	21	5	9	5	8	4	6	6	MCF	1	4	8	6	9	6	9	9		

U80747B
U80747B

JOB 270-68 LINE HACKBERRY 1 SPREAD 1

LOOKING N35W DATE 9/24/68 A= 500

CENTER 0.0 LABEL SW / NE FREQ 3.0

COUPLING yes

Z

9.30.68

HEINRICHS GEOEXPLORATION CO.

I.P. RECEIVER NOTES

PROJECT GUNNEX MACKBERRY

LINE 1 HALF S55W SP. 1 DATE 9/24/88

PAGE 1

SEND	4 5	3 4	4 5	2 3	3 4	4 5	1 2	2 3	3 4	4 5
RECEIVE	0-5 SW	5-10 SW		10-15 SW			15-20 SW			
RANGE	300	300	100	1000	100	30	300	300	30	30
DC 1	950 980	1945 194	319 319	435 435	499 502	174 165	275 275	114 112	210 210	857 950
DC 2	950 980	1945 194	319 319	435 435	499 502	175 170	274 275	114 112	207 210	850 930
DC 3						171 169	274 275		209 209	859 850
DC 4						175 172			208 210	850 940
DC 5						169 170			207 209	810 941
DC 6										844 945
DC 7										
DC 8										
DC AVG.										
AC 1	94.5	187.5	30.9	420	48.4	16.6	265	110	20.2	8.60
AC 2	94.5	187.5	30.9	420	48.4	16.6	265	110	20.2	8.60
AC AVG.										
S.P.	+4	-4		-4			+3			
AC NOISE	.05	.07		.06			.06			
POT RES.	2.5k	2k		2k			2k			

HEINRICHS GEOEXPLORATION CO.

I.P. RECEIVER NOTES

PROJECT GUNNEX HACKBERRY

LINE 1 HALF S55W SP. 1 DATE 9/24/66

PAGE 2

SEND	1 2	2 3	3 4	4 5	1 2	2 3	3 4	4 5		CAL
RECEIVE	20-25 SW			25-30 SW	25-30 SW					2 3
RANGE	300	100	30	10	100	100	10	10		300
DC 1	142/142	488/491	108/107	578/561	720/731	286/275	712/726	399/409		955/980
DC 2	144/143	483/492	106/108	632/559	723/729	285/268	701/733	381/416		955/980
DC 3	144/143	488/487	105/108	585/544	725/733	290/271	689/707	393/395		
DC 4	144/143	483/494	109/106	621/541	722/731	284/272	720/701	400/406		
DC 5		485/498	106/107	624/556	725/722	289/266	743/699	388/417		
DC 6			107/106	613/540	736/723	290/270	718/660	381/419		
DC 7				614/537			708/706	377/408		
DC 8								409/399		
DC AVG.										
AC 1	138	47.6	10.5	5.60	69.3	27.0	6.95	3.84		95.5
AC 2	141	48.1	10.4	5.61	71.9	27.3	6.74	3.85		95.5
AC AVG.										
S.P.	+3				+1					
AC NOISE	.06				.06					
POT RES.	5K				4K					

HEINRICHS GEOEXPLORATION CO.

I. P. SENDER NOTES

PROJECT HACK BERRY

LINE 1 HALF SW SP. 1 DATE SEP 24/68

SEND	4-5	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5
RECEIVE										
RANGE										
VOLTAGE	103x4	83X4	110x4	105X4	84x4	103x4	62x4	104x4	84X4	111X4
CURRENT	1.0	1.0	1.0	2.0	1.0	1.0	1.0	2.0	1.0	1.0
SEND	1-2	2-3	3-4	4-5	1-2	2-3	3-4	4-5		CAL
RECEIVE										2-3
RANGE										
VOLTAGE	120x4	104x4	85X4	111x4	119x4	104x4	83x4	111x4		53x4
CURRENT	2.0	2.0	1.0	1.0	2.0	2.0	1.0			1.0

FREQUENCIES .105 3.0

SENDER NO. 1

OPERATOR DAVES

RECEIVER NO. 10CC/R

OPERATOR DON B

COMMENTS:

HEINRICHS GEOEXPLORATION CO.
I.P. RECEIVER NOTES

PROJECT GUNNEX HACKBERRY
LINE 1 HALF N55E SP. 1 DATE 9/23/68

SEND	1 2	2 3	1 2	3 4	2 3	1 2	4 5	3 4	2 3	1 2
RECEIVE	0-5 NE	5-10 NE		10-15 NE			15-20 NE			
RANGE	1000	300	100	300	100	100	100	30	30	30
DC 1	382 375	190 191	~~639 656~~	114 116	909 928	473 473	515 517	141 144	165 168	105 105
DC 2	382 375	190 191	639 644	114 115	900 926	474 478	515 519	140 144	165 165	105 106
DC 3			640 643	114 116	906 938	473 477	516 520	143 145	166 168	104 105
DC 4			642 642	113 115	900 924	472 482	517 520	144 143	165 168	
DC 5					896 940	468 474	513 518			
DC 6							514 520			
DC 7										
DC 8										
DC AVG.										
AC 1	363	188	63.4	110	88.2	46.0	50.0	13.9	16.2	10.1
AC 2	363	188	63.7	110	88.4	46.0	50.0	13.9	16.2	10.1
AC AVG.										
S.P.	+20	-4		-14			-5			
AC NOISE	.13	.14		.13			.07			
POT RES.	7K	21K		8K			3.5K			

HEINRICHS GEOEXPLORATION CO.
I.P. RECEIVER NOTES

PROJECT GUNNEX (HACKBERRY)
LINE 1 HALF N55E SP. 1 DATE 9/23/68

PAGE 5

SEND	4 5	3 4	2 3	1 2	4 5	3 4	2 3	1 2		CAL
RECEIVE	20-25NE				25-30NE					3 4
RANGE	30	10	10	10	10	3	10	10		300
DC 1	880/890	418/369	581/563	420/399	438/440	255/246	361/363	260/286		975/950
DC 2	840/905	426/399	576/552	409/399	443/446	252/261	340/369	260/289		975/950
DC 3	845/885	384/432	602/562	438/419	418/462	228/245	339/383	260/284		
DC 4	840/910	426/441	606/539	365/407	399/443	276/255	334/360	264/280		
DC 5	820/900	367/452	600/537	414/423	453/452	256/234	360/359	271/279		
DC 6		404/423	604/513	400/399	404/455	287/244	366/353	278/273		
DC 7		391	560/581	412/420	404/437	257/209	369/348	286/268		
DC 8			560/597		482/380	261/246				
DC AVG.			5.20							
AC 1	85.0	4.03	5.60	4.00	4.28	2.43	3.50	2.67		95.1
AC 2	85.0	4.03	5.64	4.00	4.29	2.43	3.50	2.67		95.0
AC AVG.										
S.P.	+4				-16					
AC NOISE	.05				.04					
POT RES.	15K				9K					

HEINRICHS GEOEXPLORATION CO.

I. P. SENDER NOTES

PROJECT HACKBERRY

LINE 1 HALF NE SP. 1 DATE SEP 23/6X

SEND	1-2	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2
RECEIVE										
RANGE										
VOLTAGE	122x4	105x4	119x4	91x4	105x4	120x4	123x4	88x4	103x4	120x4
CURRENT	2.0	2.0	2.0	1.0	2.0	2.0	1.0	1.0	2.0	2.0
SEND	4-5	3-4	2-3	1-2	4-5	3-4	2-3	1-2		CAL
RECEIVE										3-4
RANGE										
VOLTAGE	120x4	88x4	103x4	119x4	118x4	86x4	103x4	120x4		89x4
CURRENT	1.0	1.0	2.0	2.0	1.0	1.0	2.0	2.0		1.0

FREQUENCIES .05 3.0

SENDER NO. 1

OPERATOR DAVES

RECEIVER NO. 10661R

OPERATOR DON. B.

COMMENTS:

Gunnex 3.0 Hz

HEINRICHS GEOEX B270-68 LINE HACKBERRY 2 SPD 1 LOOKING N35W 9-25-68 A= 500 FEET

Interface

1 2 3 4 5

30SW 25 20 15 10 5 0SW/NE 5 10 15 20 25 30NE SURFACE

RHO/2PI

N														
1	X	X	X	X374	X228	X184 ~~187~~ ~~181~~	X174 ~~172~~	X359	X160	X	X	X	X	
2	X	X	X	X344	X301	X258	X206 ~~209~~ ~~204~~	X231	X191	X67	X	X	X	
3	X	X	X607	X274	X422	X272	X281	X114	X88	X75	X	X	X	
4	X	X	X	X430	X431	X413	X	X134	X47	X90	X	X	X	
5	X	X	X	X739	X422	X	X	X62	X51	X	X	X	X	
6	X	X	X	X	X711	X	X	X	X62	X	X	X	X	

1 2 3 4 5

30SW 25 20 15 10 5 0SW/NE 5 10 15 20 25 30NE SURFACE

PFE

N														
1	X	X	X	X4.2	X4.2	X3.3 ~~3.9~~	X3.2 ~~3.2~~	X3.6	X3.8	X	X	X	X	
2	X	X	X	X3.2	X2.3	X3.3	X3.8 ~~4.8~~	X2.7	X3.2	X1.6	X	X	X	
3	X	X	X2.6	X2.7	X3.6	X3.2	X1.9	X2.5	X2.4	X2.4	X	X	X	
4	X	X	X	X1.6	X3.9	X3.1	X	X2.4	X2.1	X.9	X	X	X	
5	X	X	X	X3.7	X4.1	X	X	X2.5	X2.6	X	X	X	X	
6	X	X	X	X	X3.7	X	X	X	X2.0	X	X	X	X	

1 2 3 4 5

30SW 25 20 15 10 5 0SW/NE 5 10 15 20 25 30NE SURFACE

MCF

N														
1	X	X	X	X11	X18	X19 ~~15~~ ~~22~~	X18 ~~19~~	X10	X24	X	X	X	X	
2	X	X	X	X9	X8	X13	X18 ~~13~~ ~~24~~	X12	X17	X25	X	X	X	
3	X	X	X4	X10	X9	X12	X7	X22	X27	X32	X	X	X	
4	X	X	X	X4	X9	X8	X	X18	X43	X10	X	X	X	
5	X	X	X	X5	X10	X	X	X41	X52	X	X	X	X	
6	X	X	X	X	X5	X	X	X	X33	X	X	X	X	

BL/289

Gunnex 310 Hz

HEINRICHS GEOEX B270-68 LINE HACKBERRY 1 SPD 1 LOOKING N35W 9-24-68 A= 500 FEET

Int ?

1 2 3 4 5

SURFACE

30SW 25 20 15 10 5 0SW/NE 5 10 15 20 25 30NE

RHO/2PI

N															
1	X	X	X	X426	X337	X298	X149	X179	X81	X	X	X	X		
2	X	X	X	X444	X350	X310	X200	X285	X89	X54	X	X	X		
3	X	X	X564	X379	X324	X265	X370	X128	X64	X68	X	X	X		
4	X	X	X	X432	X332	X277	X	X164	X89	X78	X	X	X		
5	X	X	X	X217	X316	X	X	X111	X98	X	X	X	X		
6	X	X	X	X	X--	X	X	X	X120	X	X	X	X		

--?--

1 2 3 4 5

SURFACE

30SW 25 20 15 10 5 0SW/NE 5 10 15 20 25 30NE

PFE

N															
1	X	X	X	X2.3	X2.2	2.6	0.4	X2.9	X2.0	X	X	X	X		
2	X	X	X	X1.3	X1.4	X2.1	0.9	X2.4	X1.6	X.8	X	X	X		
3	X	X	X1.7	X.8	X2.0	X1.6	X1.8	X.4	X.6	X1.1	X	X	X		
4	X	X	X	X1.2	X1.0	X2.5	X	X2.6	X.3	X1.9	X	X	X		
5	X	X	X	X2.7	X2.4	X	X	X.3	X1.1	X	X	X	X		
6	X	X	X	X	X--	X	X	X	X1.5	X	X	X	X		

+3 +2 -1 -4 -0 +4 0 +20 +16 +2 -3 +1 -15

1 2 3 4 5

SURFACE

30SW 25 20 15 10 5 0SW/NE 5 10 15 20 25 30NE

MCF

N															
1	X	X	X	X5	X7	9	3	X16	X25	X	X	X	X		
2	X	X	X	X3	X4	X7	5	X8	X18	15	X	X	X		
3	X	X	X3	X2	X6	X6	X5	X3	X9	X16	X	X	X		
4	X	X	X	X3	X3	X9	X	X16	X4	X24	X	X	X		
5	X	X	X	X12	X8	X	X	X2	X11	X	X	X	X		
6	X	X	X	X	X--	X	X	X	X12	X	X	X	X		

0894362

0894363

Gunnex 3.0 Hz

HEINRICHS GEOEX 8270-68 LINE HACKBERRY 3 SPD 1 LOOKING N35W 9-26-68 A= 500 FEET

Approx 1500 ft Southerly from Line 1

1 2 3 4 5

30SW 25 20 15 10 5 0SW/NE 5 10 15 20 25 30NE SURFACE

RHO/2PI

N	30SW	25	20	15	10	5	0SW/NE	5	10	15	20	25	30NE
1	X	X	X	X432	X435	X207	X130	X774	X429	X	X	X	X
2	X	X	X	X469	X547	X207	X175	X337	X968	X395	X	X	X
3	X	X	X718	X562	X307	X176	X424	X393	X693	X325	X	X	X
4	X	X	X	X860	X325	X267	X	X462	X279	X480	X	X	X
5	X	X	X	X514	X302	X	X	X357	X204	X	X	X	X
6	X	X	X	X	X470	X	X	X	X239	X	X	X	X

1 2 3 4 5

30SW 25 20 15 10 5 0SW/NE 5 10 15 20 25 30NE SURFACE

PFE

N	30SW	25	20	15	10	5	0SW/NE	5	10	15	20	25	30NE
1	X	X	X	X2.4	X4.6	X2.9	X2.5	X4.1	X3.3	X	X	X	X
2	X	X	X	X2.6	X2.9	X3.5	X2.3	X3.0	X3.7	X.3	X	X	X
3	X	X	X3.1	X2.6	X2.5	X1.9	X2.1	X2.4	X3.0	X3.1	X	X	X
4	X	X	X	X3.4	X1.9	X2.2	X	X2.6	X2.3	X2.9	X	X	X
5	X	X	X	X3.0	X2.9	X	X	X2.1	X1.9	X	X	X	X
6	X	X	X	X	X3.0	X	X	X	X2.2	X	X	X	X

-35 -28 -40 -15 -8 -14 0 -1 -6 +4 -9 -13 -20

1 2 3 4 5

30SW 25 20 15 10 5 0SW/NE 5 10 15 20 25 30NE SURFACE

MCF

N	30SW	25	20	15	10	5	0SW/NE	5	10	15	20	25	30NE
1	X	X	X	X5	X11	X14	X21	X5	X8	X	X	X	X
2	X	X	X	X6	X5	X17	X21	X9	X4	X1	X	X	X
3	X	X	X4	X5	X8	X11	X5	X6	X4	X9	X	X	X
4	X	X	X	X4	X6	X8	X	X6	X8	X6	X	X	X
5	X	X	X	X6	X10	X	X	X6	X9	X	X	X	X
6	X	X	X	X	X6	X	X	X	X9	X	X	X	X

U80/478

U80/478

Gunnex 3.0 Hz

HEINRICHS GEOEX B270-68 LINE HACKBERRY 1 SPD 1 LOOKING N35W 9-24-68 A= 500 FEET

1.000	1.000	1.000	2.000	1.000	1.000	1.000	2.000	1.000	1.000	I	2.000	2.000	1.000	1.000	2.000	2.000	1.000	1.000	1.000	
95	1945	319	435	499	174	275	114	210	857	DC	142	488	108	578	720	286	399		955	LEFT
98	1940	319	435	502	165	275	112	210	950		142	491	107	/	731	275	409		980	SIDE
					175	274		207	850		144	483	106	561	723	285	381			
					170	275		210	930		143	492	108	632	729	268	416			
					171	274		209	859		144	488	105	559	725	290	393			
					169	275		209	950		143	487	108	585	733	271	395			
					175			208	850		144	483	109	544	722	284	400			
					172			210	940		143	494	106	621	731	272	406			
					169			207	810			485	106	541	725	289	388			
					170			209	941			498	107	624	/	266	417			
									844				107	556	722	290	381			
									945				106	613	736	270	419			
														540	723		377			
														619			408			
														532			409			
																	399			

1	1	2	1	2	3	1	2	3	4	N	2	3	4	5	3	4	5	6		
96.50	194.2	31.90	435.0	50.05	17.09	274.6	113.0	20.88	8.932	DCA	143.2	48.84	10.69	5.817	72.75	27.89	3.999	0.000	96.75	
94.50	187.5	30.90	420.0	48.40	16.60	265.0	110.0	20.20	8.600	AC1	138.0	47.60	10.50	5.600	69.30	27.10	3.840	0.000	95.50	
94.50	187.5	30.90	420.0	48.40	16.60	265.0	110.0	20.20	8.600	AC2	141.0	48.10	10.40	5.610	71.90	27.30	3.850	0.000	95.50	
94.50	187.5	30.90	420.0	48.40	16.60	265.0	110.0	20.20	8.600	ACA	139.5	47.85	10.45	5.605	70.60	27.20	3.845	0.000	95.50	
149.6	301.2	197.8	337.2	310.4	264.9	425.7	350.4	323.8	277.0	RHO	444.1	378.6	331.5	315.7	564.0	432.4	217.0	*000.0	1.034	DC CAL
.8	2.3	1.9	2.2	2.1	1.6	2.3	1.4	2.0	2.5	PFE	1.3	.8	1.0	2.4	1.7	1.2	2.7	*000.0	.987	AC CAL
5	8	10	7	7	6	5	4	6	9	MCF	3	2	3	8	3	3	12	*00000		

2.000	2.000	2.000	1.000	2.000	2.000	1.000	1.000	2.000	2.000	I	1.000	1.000	2.000	2.000	1.000	1.000	2.000	2.000	1.000	
382	190	639	114	909	473	515	141	165	105	DC	860	418	581	420	438	255	361	260	975	RIGHT
375	191	644	116	928	473	517	144	158	105		890	369	563	399	440	246	363	286	950	SIDE
		640	114	900	474	515	140	165	105		840	/	576	409	443	252	340	260		
		643	115	926	478	519	144	165	106		905	426	552	399	446	261	369	289		
		642	114	906	473	516	143	166	104		845	399	602	438	418	228	339	260		
		652	116	938	477	520	145	168	105		885	384	/	/	462	/	383	284		
			113	900	472	517	144	165			840	432	562	419	399	245	334	264		
			115	924	482	520	143	168			910	426	600	365	/	276	/	280		
				896	468	513					820	441	539	407	443	/	360	271		
				940	474	518					900	367	600	414	453	255	360	279		
						514						452	537	423	452	256	358	278		
						520						404	604	400	404	234	366	273		
												/	/	399	455	289	353	280		
												403	573	412	404	244	369	268		
												391	560	420	/	257	348			
													581		437	209				
													560		482	261				
													597		380	246				

1	1	2	1	2	3	1	2	3	4	N	2	3	4	5	3	4	5	6		
378.5	190.5	64.29	114.6	91.58	47.45	51.70	14.31	16.48	10.50	DCA	86.83	4.106	5.713	4.063	4.389	2.509	3.585	2.745	96.25	
363.0	188.0	63.40	110.0	88.20	46.00	50.00	13.90	16.20	10.10	AC1	85.00	4.030	5.600	4.000	4.280	2.430	3.500	2.670	95.00	
363.0	188.0	63.70	110.0	88.40	46.00	50.00	13.90	16.20	10.10	AC2	85.00	4.030	5.640	4.000	4.290	2.430	3.500	2.670	95.00	
363.0	188.0	63.55	110.0	88.30	46.00	50.00	13.90	16.20	10.10	ACA	85.00	4.030	5.620	4.000	4.285	2.430	3.500	2.670	95.00	
294.9	148.4	200.4	178.7	285.5	369.7	80.56	89.23	128.4	163.6	RHO	541.3	64.00	89.04	110.8	68.40	78.20	97.76	119.8	1.039	DC CAL
2.9	.0	-.1	2.9	2.4	1.8	2.0	1.6	.4	2.6	PFE	.8	.6	.3	.3	1.1	1.9	1.1	1.5	.987	AC CAL
10	0	-1	16	8	5	25	18	3	16	MCF	2	9	4	2	16	24	11	12		

U894360

U894361