

FIGURE NO. 1-A

J. R. SIMPLOT COMPANY
INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Project Nation Lakes Line 1 A. 200' Data Page 1 Date 8/12/66 Comp. By J.J.

Send	2-3	2-1	3-4	2-3	2-1	4-5	3-4	2-3	2-1	4-5	3-4	2-3	2-1
Receive	4-5	4-5	5-6	5-6	5-6	6-7	6-7	6-7	6-7	7-8	7-8	7-8	7-8
n	1	2	1	2	3	1	2	3	4	2	3	4	5
Kn x 10 ⁻³	.6	2.4	.6	2.4	6	.6	2.4	6	12	2.4	6	12	21
I (ma)	100												
Range	300	30	300	100	10	1000	100	100	30	100	30	30	—
Vdc (mv)	26.3	25.6	216	81.4	9.36	638	57.5	52.5	8.22	107	16.6	22.7	—
Vac (mv)	240	25.3	210	77.7	10.30	642	56.4	52.0	8.80	108	16.8	22.8	—
Vac Corr	—	—	—	—	—	—	—	—	—	—	—	—	—
Dc Cal	.560												—
Ac-Dc Cal	1.040												—
ρ _{dc}	882	345	736	1098	315	2145	772	1738	55.5	1440	542	1521	—
ρ _{dc} /ρ _{ac}	1.140	1.058	1.070	1.075	—	1.030	1.059	1.058	—	1.030	1.030	1.038	—
PFE	14	6	10	—	—	3	6	6	—	3	3	4	—
MCF	16	17	9	9	0	1	8	3	0	2	6	2	—

ACN < .03

$$Ac\ Corr = \sqrt{(Vac)^2 - (Acn \times 2)^2}$$

$$\rho_{dc} = Vdc \times \frac{Dc\ Cal \times Kn \times 10^3}{I}$$

$$\frac{\rho_{dc}}{\rho_{ac}} = Vdc \times \frac{Ac-Dc\ Cal}{Vac\ Corr}$$

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	4-5
Receive	1-2	1-2	1-10	1-10	1-10	10-11	10-11	10-11	10-11	11-12	11-12	11-12	11-12
n	1	2	1	2	3	1	2	3	4	2	3	4	5
Kn x 10 ⁻³	.6	2.4	.6	2.4	6	.6	2.4	6	12	2.4	6	12	21
I (ma)	100												
Range	30	30	300	16	30	100	100	10	10	100	30	3	10
Vdc (mv)	33.0	24.9	239	15.9	21.8	147.1	74.2	6.98	11.8	48.0	39.6	4.46	8.24
Vac (mv)	31.4	24.9	204	13.3	19.7	118.4	63.0	5.84	10.6	42.0	37.0	3.99	7.74
Vac Corr	—	—	—	—	—	—	—	—	—	—	—	—	—
Dc Cal	.560												
Ac-Dc Cal	1.040												
ρ _{dc}	111	335	808	215	735	495	1000	235	791	648	1338	302	972
ρ _{dc} /ρ _{ac}	1.098	1.040	1.220	1.240	1.159	1.282	1.222	1.240	1.160	1.182	1.110	1.162	1.110
PFE	10	4	22	24	16	28	22	24	16	18	11	16	11
MCF	89	12	27	112	22	57	22	102	20	28	8	55	11

ACN < .03 ?

$$Kn \times 10^{-3} = \frac{an(n+1)(n+2) \times 10^{-3}}{2}$$

$$PFE = \frac{\rho_{dc}}{\rho_{ac}} - 1 (10^2)$$

$$MCF = \frac{\rho_{dc}}{\rho_{ac}} - 1 (10^5) / \rho_{dc}$$

FIGURE NO. 2-A

J. R. SIMPLOT COMPANY

INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Project NOVION LABS Line 2 A. 200' Data Page 1 Date 8/13/66 Comp. By J.W.

Send	2-3	2-1	3-4	2-3	2-1	4-5	3-4	2-3	2-1	4-5	3-4	2-3	2-1
Receive	4-5	4-5	5-6	5-6	5-6	6-7	6-7	6-7	6-7	7-8	7-8	7-8	7-8
n	1	2	1	2	3	1	2	3	4	2	3	4	5
Kn x 10 ⁻³	.6	2.4	.6	2.4	6	.6	2.4	6	12	2.4	6	12	21
I (ma)	150	500	150	150	500	150	150	150	500	150	150	150	500
Range	300	100	300	100	30	1000	100	100	30	100	30	30	30
Vdc (mV)	159.	92.7	266	63.7	49.0	476	103.4	45.2	35.4	113	32.7	26.0	21.5
Vac (mV)	152	84.4	362	61.0	45.7	478	101.7	44.2	33.4	114	32.4	25.8	20.6
Vac Corr	—	—	—	—	—	—	—	—	—	—	—	—	—
Dc Cal	.520												
Ac-Dc Cal	1.040												
ρ _{dc}	325	232	750	528	306	972	858	922	440	928	670	1060	457
ρ _{dc} /ρ _{ac}	1.089	1.139	1.082	1.088	1.118	1.038	1.060	1.065	1.102	1.032	1.050	1.049	1.085
PFE	9	14	8	9	12	4	6	7	10	3	5	5	9
MCF	7	60	11	17	39	4	7	7	23	3	7	5	19

ACN < .025

$$Ac\ Corr = \sqrt{(Vac)^2 - (Acn \times 2)^2} \quad \rho_{dc} = Vdc \times \frac{Dc\ Cal \times Kn \times 10^3}{I} \quad \frac{\rho_{dc}}{\rho_{ac}} = Vdc \times \frac{Ac-Dc\ Cal}{Vac\ Corr.}$$

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	4-5
Receive	1-2	1-2	1-10	1-10	1-10	10-11	10-11	10-11	10-11	11-12	11-12	11-12	11-12
n	1	2	1	2	3	1	2	3	4	2	3	4	5
Kn x 10 ⁻³	.6	2.4	.6	2.4	6	.6	2.4	6	12	2.4	6	12	21
I (ma)	150					500	150			500	150		
Range	30	30	300	10	30	1000	100	30	30	300	30	10	10
Vdc (mV)	36.4	24.3	302	12.6	14.8	712	135	13.9	16.5	160	43.7	7.47	9.19
Vac (mV)	29.1	23.0	301	12.0	14.4	640	123	12.8	14.9	130	36.9	6.70	8.10
Vac Corr	—	—	—	—	—	—	—	—	—	—	—	—	—
Dc Cal	.520												
Ac-Dc Cal	1.040												
ρ _{dc}	62.0	203	615	104	302	445	1120	284	675	400	891	305	652
ρ _{dc} /ρ _{ac}	1.093	1.099	1.045	1.092	1.070	1.158	1.142	1.130	1.151	1.280	1.235	1.160	1.180
PFE	9	10	5	9	7	16	14	13	15	28	24	16	18
MCF	150	49	7	89	23	36	13	46	22	70	26	52	27

ACN < .025

$$Kn \times 10^{-3} = \frac{an(n+1)(n+2) \times 10^{-3}}{2}$$

$$PFE = \frac{\rho_{dc}}{\rho_{ac}} - 1 (10^2)$$

$$MCF = \frac{\rho_{dc}}{\rho_{ac}} - 1 (10^5) / \rho_{dc}$$

FIGURE NO. 3-A

J. R. SIMPLOT COMPANY
INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Project Nation Lakes Line 3 A. 200' Data Page 1 Date 8/14/66 Comp. By J. J.

Send	2-3	2-1	3-4	2-3	2-1	4-5	3-4	2-3	2-1	4-5	3-4	2-3	2-1
Receive	4-5	4-5	5-6	5-6	5-6	6-7	6-7	6-7	6-7	7-8	7-8	7-8	7-8
n	1	2	1	2	3	1	2	3	4	2	3	4	5
Kn x 10 ⁻³	.6	2.4	.6	2.4	6	.6	2.4	6	12	2.4	6	12	21
I (ma)	90												
Range	100	30	100	30	30	300	100	30	10	100	30	10	10
Vdc (mV)	125.	39.5	128	29.7	17.9	245	55.4	17.7	12.5	66.1	21.7	8.03	6.44
Vac (mV)	92.4	30.6	103	22.8	15.0	228	48.0	14.4	11.3	60.2	19.0	6.77	6.00
Vac Corr	—	—	—	—	—	—	—	—	—	—	—	—	—
Dc Cal	.532												
Ac-Dc Cal	1.010												
ρ _{dc}	445	561	458	422	638	870	789	630	889	943	771	572	795
ρ _{dc} /ρ _{ac}	1.0412	1.300	1.260	1.310	1.210	1.082	1.170	1.240	1.120	1.110	1.158	1.199	1.082
PFE	41	30	26	31	21	8	17	24	12	11	16	20	8
MCF	92	53	57	74	33	9	22	38	14	12	20	35	10

ACN < 102

$$Ac\ Corr = \sqrt{(Vac)^2 - (Acn \times 2)^2} \quad \rho_{dc} = Vdc \times \frac{Dc\ Cal \times Kn \times 10^3}{I} \quad \frac{\rho_{dc}}{\rho_{ac}} = Vdc \times \frac{Ac-Dc\ Cal}{Vac\ Corr.}$$

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	4-5
Receive	1-2	1-2	1-10	1-10	1-10	10-11	10-11	10-11	10-11	11-12	11-12	11-12	11-12
n	1	2	1	2	3	1	2	3	4	2	3	4	5
Kn x 10 ⁻³	.6	2.4	.6	2.4	6	.6	2.4	6	12	2.4	6	12	21
I (ma)	90												
Range	300	30	300	30	10	300	100	30	10	100	30	10	3
Vdc (mV)	32.6	39.2	238	27.2	10.4	424	71.2	15.6	8.01	66.7	19.0	7.84	4.54
Vac (mV)	268	301.6	226	24.4	9.40	392	62.8	13.8	7.60	56.9	15.1	6.64	4.02
Vac Corr	—	—	—	—	—	—	—	—	—	—	—	—	—
Dc Cal	.532												
Ac-Dc Cal	1.010												
ρ _{dc}	1160	558	848	386	370	1510	1050	552	572	948	675	557	562
ρ _{dc} /ρ _{ac}	1.230	1.290	1.062	1.129	1.120	1.098	1.143	1.140	1.080	1.182	1.270	1.190	1.138
PFE	23	29	6	13	12	10	14	14	8	18	27	19	14
MCF	20	52	7	33	32	7	13	25	14	19	40	34	25

ACN < 102

$$Kn \times 10^{-3} = \frac{an(n+1)(n+2) \times 10^{-3}}{2}$$

$$PFE = \frac{\rho_{dc}}{\rho_{ac}} - 1 (10^2)$$

$$MCF = \frac{\rho_{dc}}{\rho_{ac}} - 1 (10^5) / \rho_{dc}$$

FIGURE NO. 4-A

**J. R. SIMPLOT COMPANY
INDUCED POLARIZATION SURVEY COMPUTATION SHEET**

Project Nation Labs Line 4 A. 200' Data Page 1 Date 8/15/66 Comp. By J.J.

Send	2-3	2-1	3-4	2-3	2-1	4-5	3-4	2-3	2-1	4-5	3-4	2-3	2-1
Receive	4-5	4-5	5-6	5-6	5-6	6-7	6-7	6-7	6-7	7-8	7-8	7-8	7-8
n	1	2	1	2	3	1	2	3	4	2	3	4	5
Kn x 10 ⁻³	.6	2.4	.6	2.4	6	.6	2.4	6	12	2.4	6	12	21
I (ma)	130												
Range	1000	300	1000	300	100	1000	300	100	30	300	100	30	30
Vdc (mV)	555.	156	1022	193	78.4	954	230	85.5	39.2	256	94.5	44.2	23.3
Vac (mV)	520	150	994	190	78.0	950	219	83.2	39.0	260	91.0	43.8	23.4
Vac Corr	—	—	—	—	—	—	—	—	—	—	—	—	—
Dc Cal	1500												
Ac-Dc Cal	1.050												
ρ _{dc}	1275	1435	2780	1820	1820	2170	2102	1950	1800	2350	2152	2040	1860
ρ _{dc/pac}	1.122	1.092	1.080	1.095	1.042	1.058	1.105	1.075	1.055	1.040	1.090	1.060	1.045
PFE	12	9	8	10	4	6	11	8	6	4	9	6	5
MCF	10	6	3	5	2	3	5	4	3	2	4	3	2
ACN < .025													

$$Ac\ Corr = \sqrt{(Vac)^2 - (Acn \times 2)^2} \quad \rho_{dc} = Vdc \times \frac{Dc\ Cal \times Kn \times 10^3}{I} \quad \frac{\rho_{dc}}{\rho_{ac}} = Vdc \times \frac{Ac-Dc\ Cal}{Vac\ Corr.}$$

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	4-5
Receive	1-2	1-2	1-10	1-10	1-10	10-11	10-11	10-11	10-11	11-12	11-12	11-12	11-12
n	1	2	1	2	3	1	2	3	4	2	3	4	5
Kn x 10 ⁻³	.6	2.4	.6	2.4	6	.6	2.4	6	12	2.4	6	12	21
I (ma)	130												
Range	300	300	1000	100	100	1000	300	100	30	300	100	30	30
Vdc (mV)													
Vac (mV)													
Vac Corr	—	—	—	—	—	—	—	—	—	—	—	—	—
Dc Cal	500												
Ac-Dc Cal	1.050												
ρ _{dc}	825	1425	1635	1150	1419	1840	1298	1018	1190	2500	1759	1350	1460
ρ _{dc/pac}	1.110	1.082	1.050	1.085	1.082	1.035	1.040	1.111	1.079	1.050	1.050	1.083	1.095
PFE	11	8	5	9	8	4	4	11	8	5	5	8	10
MCF	13	6	3	7	6	2	3	11	7	2	3	6	6
ACN < .025													

$$Kn \times 10^{-3} = \frac{an(n+1)(n+2) \times 10^{-3}}{2}$$

$$PFE = \frac{\rho_{dc}}{\rho_{ac}} - 1 (10^2)$$

$$MCF = \frac{\rho_{dc}}{\rho_{ac}} - 1 (10^5) / \rho_{dc}$$

FIGURE NO. 5-A

J. R. SIMPLOT COMPANY
INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Project Nation Lakes Line 5 A. 200' Data Page 1 Date 8/15/66 Comp. By J.J.

Send	2-3	2-1	3-4	2-3	2-1	4-5	3-4	2-3	2-1	4-5	3-4	2-3	2-1
Receive	4-5	4-5	5-6	5-6	5-6	6-7	6-7	6-7	6-7	7-8	7-8	7-8	7-8
n	1	2	1	2	3	1	2	3	4	2	3	4	5
Kn x 10 ⁻³	.6	2.4	.6	2.4	6	.6	2.4	6	12	2.4	6	12	21
I (ma)	100	300	100	100	300	100	100	100	300	100	100	100	300
Range	1000	1000	1000	300	300	1000	300	100	100	300	100	100	100
Vdc (mV)	643.	485	786	155	207	959	241	74.2	123	289	118	44.5	84.6
Vac (mV)	642	513	768	160	208	957	241	76.0	122	288	117	44.2	84.6
Vac Corr	—	—	—	—	—	—	—	—	—	—	—	—	—
Dc Cal	.533	—	—	—	—	—	—	—	—	—	—	—	—
Ac-Dc Cal	1.074	—	—	—	—	—	—	—	—	—	—	—	—
ρ _{dc}	2060	2075	2510	1980	2225	3055	3090	2360	2640	3700	3760	2850	3155
ρ _{dc/pac}	1.073	1.018	1.100	1.040	1.065	1.074	1.074	1.054	1.082	1.078	1.080	1.080	1.074
PFE	7	2	10	4	7	7	7	5	8	8	8	8	7
MCF	4	1	4	2	3	2	2	2	3	2	2	3	2

ACN < .015

$$Ac\ Corr = \sqrt{(Vac)^2 - (Acn \times 2)^2} \quad \rho_{dc} = Vdc \times \frac{Dc\ Cal \times Kn \times 10^3}{I} \quad \frac{\rho_{dc}}{\rho_{ac}} = Vdc \times \frac{Ac-Dc\ Cal}{Vac\ Corr.}$$

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	4-5
Receive	1-2	1-2	1-10	1-10	1-10	10-11	10-11	10-11	10-11	11-12	11-12	11-12	11-12
n	1	2	1	2	3	1	2	3	4	2	3	4	5
Kn x 10 ⁻³	.6	2.4	.6	2.4	6	.6	2.4	6	12	2.4	6	12	21
I (ma)	100	—	—	—	—	300	100	—	—	300	100	—	—
Range	1000	300	300	300	100	3000	100	100	30	1000	100	30	30
Vdc (mV)	560	164	354	136	50.9	2820	142.5	82.5	36.6	558	49.9	34.1	16.5
Vac (mV)	560	162	358	136	51.6	2970	144.1	81.8	36.8	567	49.4	34.2	16.9
Vac Corr	—	—	—	—	—	—	—	—	—	—	—	—	—
Dc Cal	.533.	—	—	—	—	—	—	—	—	—	—	—	—
Ac-Dc Cal	1.074	—	—	—	—	—	—	—	—	—	—	—	—
ρ _{dc}	1790	2100	1130	1742	1618	3020	1825	2640	2350	2380	1590	2180	1840
ρ _{dc/pac}	1.074	1.082	1.058	1.074	1.058	1.018	1.060	1.082	1.065	1.055	1.081	1.065	1.058
PFE	7	8	6	7	6	2	6	8	7	6	8	7	6
MCF	4	4	5	4	4	1	3	3	3	2	5	3	3

ACN < .015

$$Kn \times 10^{-3} = \frac{an(n+1)(n+2) \times 10^{-3}}{2}$$

$$PFE = \frac{\rho_{dc}}{\rho_{ac}} - 1 (10^2)$$

$$MCF = \frac{\rho_{dc}}{\rho_{ac}} - 1 (10^5) / \rho_{dc}$$

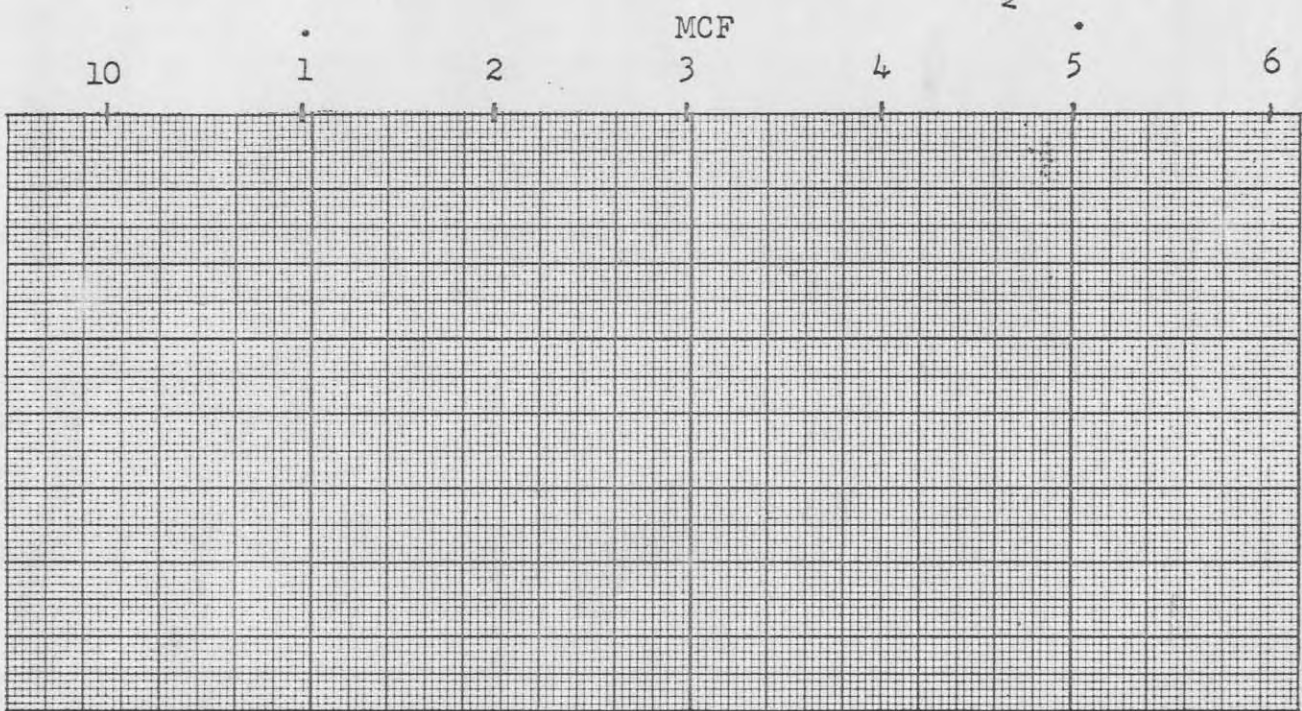
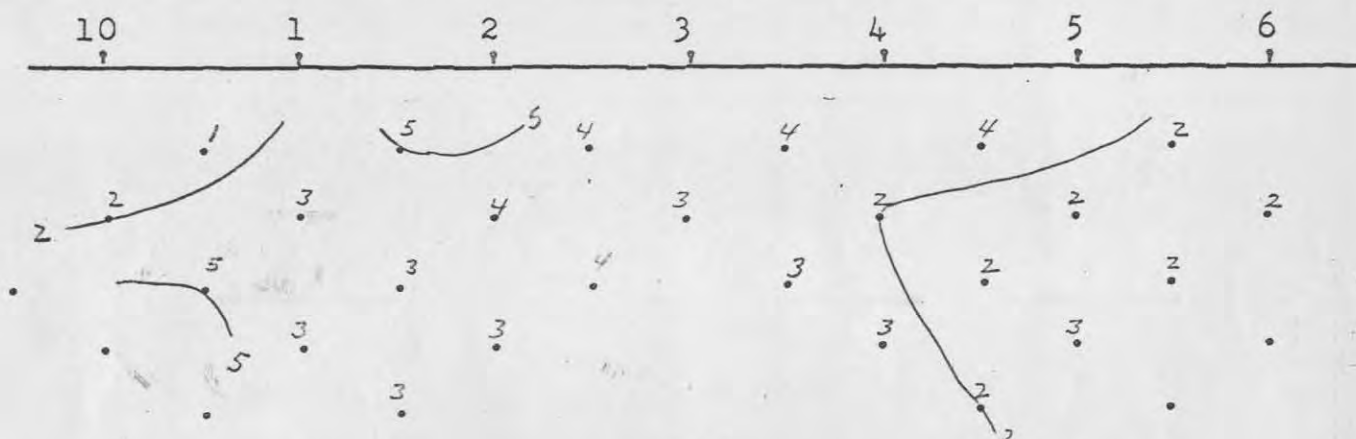
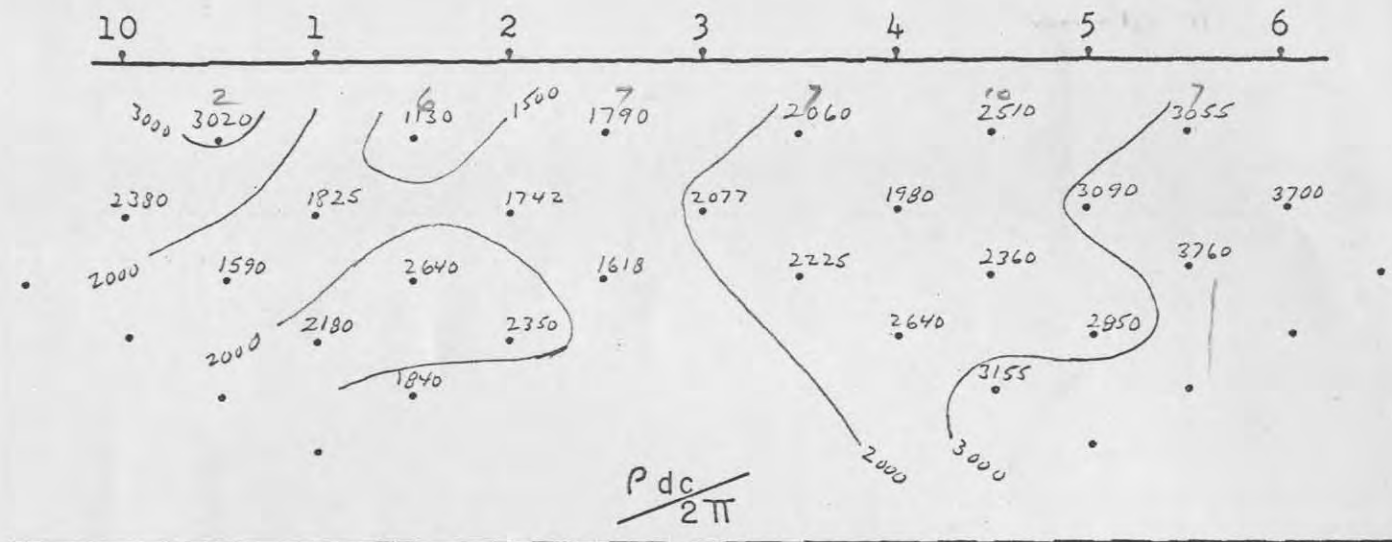


FIGURE NO. 5

SP. - GEOLOGY
 SIMPLOT INDUSTRIES INC.
COORDINATES 3
 EAST NORTH

PROJ. Nation
 LINE 5 105
 BEARING N 65 E
 DATE 8/15/66
 NAME Jennett
 A 2 00'

FIGURE NO. 6-A

J. R. SIMPLOT COMPANY
INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Project Nation Lakes Line 6 A. 200' Data Page 1 Date 8/16/66 Comp. By J.J.

Send	2-3	2-1	3-4	2-3	2-1	4-5	3-4	2-3	2-1	4-5	3-4	2-3	2-1
Receive	4-5	4-5	5-6	5-6	5-6	6-7	6-7	6-7	6-7	7-8	7-8	7-8	7-8
n	1	2	1	2	3	1	2	3	4	2	3	4	5
Kn x 10 ⁻³	.6	2.4	.6	2.4	6	.6	2.4	6	12	2.4	6	12	21
I (ma)	100												
Range	1000	300	1000	300	100	1000	300	100	30	300	100	30	30
Vdc (mV)	701	167	583	178	71.0	1100	163	87.3	40.0	253	60.2	39.6	22.5
Vac (mV)	704	162	642	176	70.1	1084	165	87.0	41.2	250	60.7	40.2	22.8
Vac Corr													
Dc Cal	.533												
Ac-Dc Cal	1.074												
ρ _{dc}	2250	2100	1880	2280	2290	3540	2090	2800	2560	3240	1940	2540	2535
ρ _{dc} /ρ _{ac}	1.066	1.120	0	1.082	1.080	1.080	1.058	1.078	1.040	1.082	1.064	1.060	1.060
PFE	7	12	0	8	8	8	6	8	4	8	6	6	6
MCF	3	6	0	4	4	2	3	3	2	3	3	2	2

ACN < .030

$$Ac\ Corr = \sqrt{(Vac)^2 - (Acn \times 2)^2} \quad \rho_{dc} = Vdc \times \frac{Dc\ Cal \times Kn \times 10^3}{I} \quad \frac{\rho_{dc}}{\rho_{ac}} = Vdc \times \frac{Ac-Dc\ Cal}{Vac\ Corr}$$

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	4-5
Receive	1-2	1-2	1-10	1-10	1-10	10-11	10-11	10-11	10-11	11-12	11-12	11-12	11-12
n	1	2	1	2	3	1	2	3	4	2	3	4	5
Kn x 10 ⁻³	.6	2.4	.6	2.4	6	.6	2.4	6	12	2.4	6	12	21
I (ma)	100												
Range	300	300	1000	100	100	1000	300	100	30	300	100	30	30
Vdc (mV)	437	153	909	131	68.8	671	203	47.0	30.9	173	99.6	29.5	20.9
Vac (mV)	420	150	960	128	67.8	642	199	45.2	30.5	170	97.0	29.0	20.8
Vac Corr													
Dc Cal	.533												
Ac-Dc Cal	1.074												
ρ _{dc}	1410	1922	2910	1680	2210	2155	2600	1510	1980	2220	3180	1890	2340
ρ _{dc} /ρ _{ac}	1.118	1.095	1.015	1.100	1.090	1.122	1.095	1.119	1.085	1.090	1.090	1.090	1.079
PFE	12	10	2	10	9	12	10	12	9	9	9	9	5
MCF	8	5	5	6	4	6	4	8	4	4	3	5	3

ACN < .035

$$Kn \times 10^{-3} = \frac{an(n+1)(n+2) \times 10^{-3}}{2}$$

$$PFE = \frac{\rho_{dc}}{\rho_{ac}} - 1 (10^2)$$

$$MCF = \frac{\rho_{dc}}{\rho_{ac}} - 1 (10^5) / \rho_{dc}$$

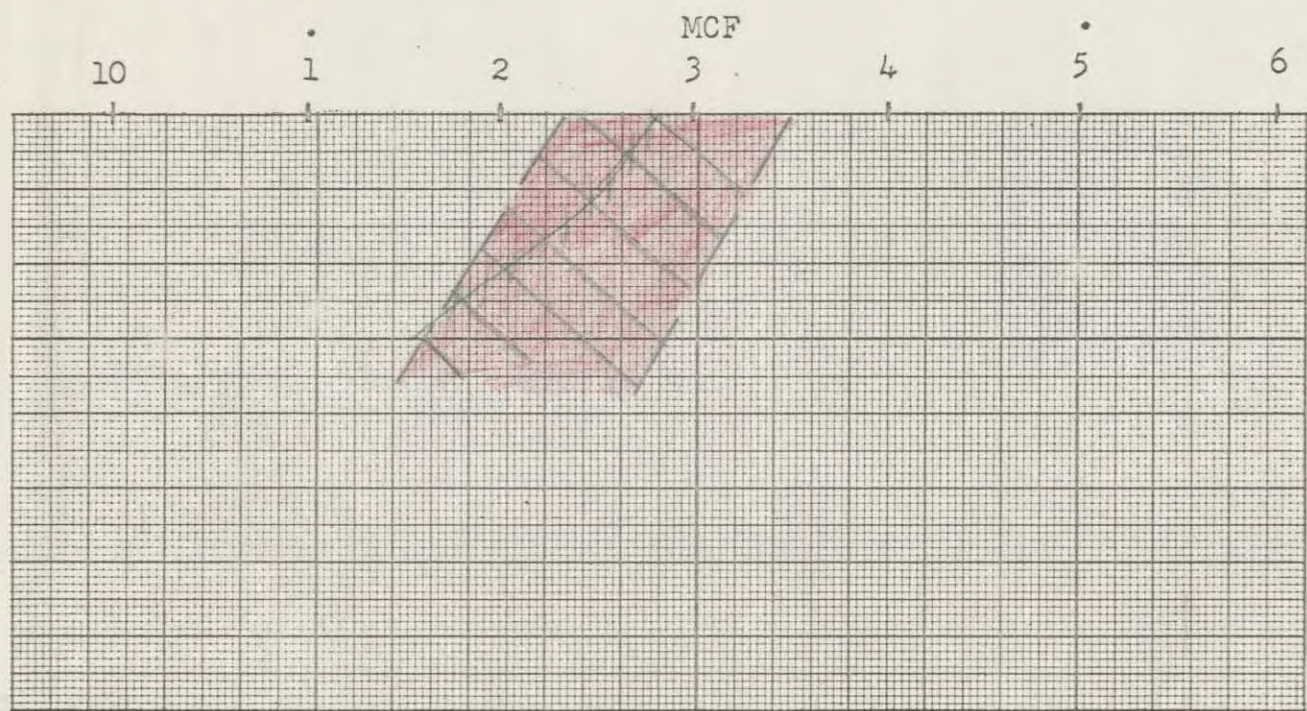
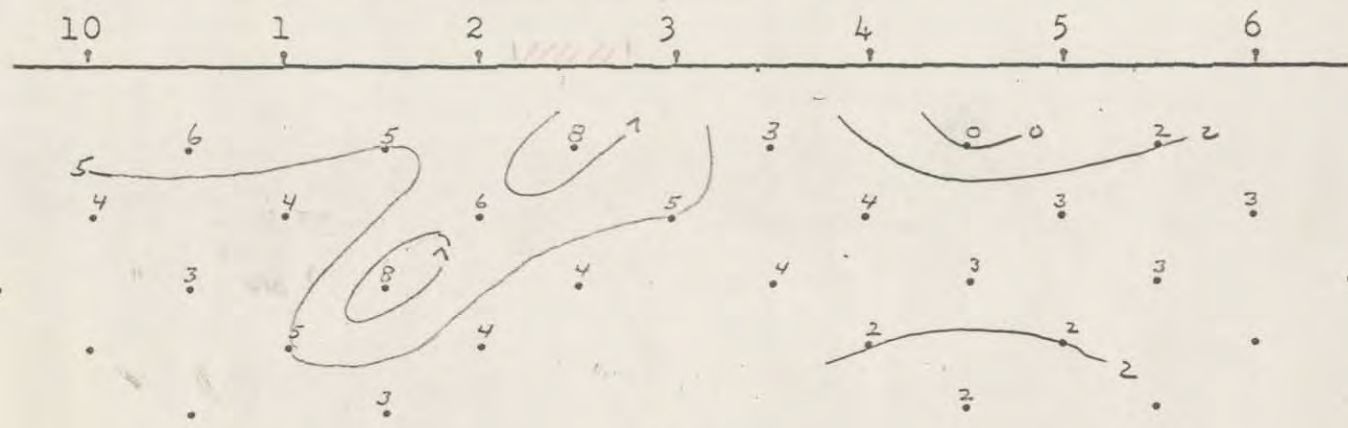
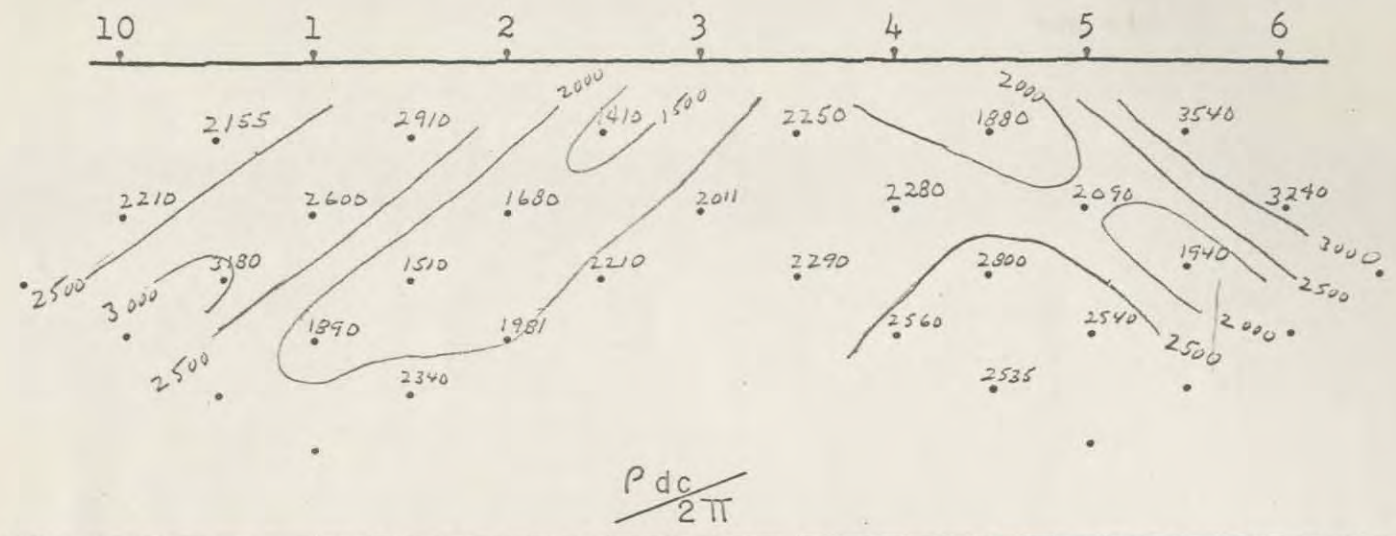


FIGURE NO. 6

SP. - GEOLOGY
 SIMPLOT INDUSTRIES INC.
 COORDINATES 3
 EAST NORTH

PROJ. Nation Lakes
 LINE 6 155
 BEARING N65 E
 DATE 8/16/66
 NAME Jammett
 A 200

FIGURE NO. 7-A

J. R. SIMPLOT COMPANY
INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Project Nation Lakes Line 7 A. 200' Data Page 1 Date 8/17/66 Comp. By J.J.

Send	2-3	2-1	3-4	2-3	2-1	4-5	3-4	2-3	2-1	4-5	3-4	2-3	2-1
Receive	4-5	4-5	5-6	5-6	5-6	6-7	6-7	6-7	6-7	7-8	7-8	7-8	7-8
n	1	2	1	2	3	1	2	3	4	2	3	4	5
Kn x 10 ⁻³	.6	2.4	.6	2.4	6	.6	2.4	6	12	2.4	6	12	21
I ma	200	200	100	200	200	100	100	200	200	100	100	200	200
Range	1000	100	1000	300	100	1000	300	300	100	300	100	100	30
Vdc (mv)	1200	155.8	685	436	87.5	1116	258	246	61.2	172	78.6	88.1	23.9
Vac (mv)	1184	156.2	678	433	88.4	1096	252	242	61.0	172	78.1	88.0	24.4
Vac Corr	—	—	—	—	—	—	—	—	—	—	—	—	—
Dc Cal	.500												→
Ac-Dc Cal	1.050												→
ρ _{dc}	1800	935	2060	2620	1310	3350	3120	3710	1820	2070	2360	2950	1265
ρ _{dc} /ρ _{ac}	1.060	1.040	1.060	1.060	1.035	1.070	1.075	1.070	1.060	1.050	1.052	1.050	1.030
PFE	6	4	6	6	4	7	8	7	6	5	5	5	3
MCF	3	4	3	2	3	2	2	2	3	2	2	2	2
ACN	< 0.02												

$$Ac\ Corr = \sqrt{(Vac)^2 - (Acn \times 2)^2} \quad \rho_{dc} = Vdc \times \frac{Dc\ Cal \times Kn \times 10^3}{I} \quad \frac{\rho_{dc}}{\rho_{ac}} = Vdc \times \frac{Ac-Dc\ Cal}{Vac\ Corr}$$

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	4-5
Receive	1-2	1-2	1-10	1-10	1-10	10-11	10-11	10-11	10-11	11-12	11-12	11-12	11-12
n	1	2	1	2	3	1	2	3	4	2	3	4	5
Kn x 10 ⁻³	.6	2.4	.6	2.4	6	.6	2.4	6	12	2.4	6	12	21
I (ma)	100	100	200	100	100	200	200	100	100	200	200	100	100
Range	300	100	1000	300	100	1000	300	100	30	300	300	30	30
Vdc (mv)	319	75.3	846	153	56.7	669	219	51.7	21.1	271	141	39.2	17.4
Vac (mv)	320	75.8	820	145	53.4	650	210	48.2	20.0	270	140	38.9	17.3
Vac Corr	—	—	—	—	—	—	—	—	—	—	—	—	—
Dc Cal	.500												→
Ac-Dc Cal	1.050												→
ρ _{dc}	958	910	1265	1840	1700	1000	1319	1550	1270	1630	2110	2360	1825
ρ _{dc} /ρ _{ac}	1.043	1.042	1.082	1.120	1.115	1.080	1.095	1.125	1.110	1.055	1.085	1.060	1.059
PFE	4	4	8	12	12	8	10	13	11	6	9	6	6
MCF	4	5	6	7	7	8	7	8	9	3	4	3	3
ACN	< 0.02												

$$Kn \times 10^{-3} = \frac{an(n+1)(n+2) \times 10^{-3}}{2}$$

$$PFE = \frac{\rho_{dc}}{\rho_{ac}} - 1 (10^2)$$

$$MCF = \frac{\rho_{dc}}{\rho_{ac}} - 1 (10^5) / \rho_{dc}$$

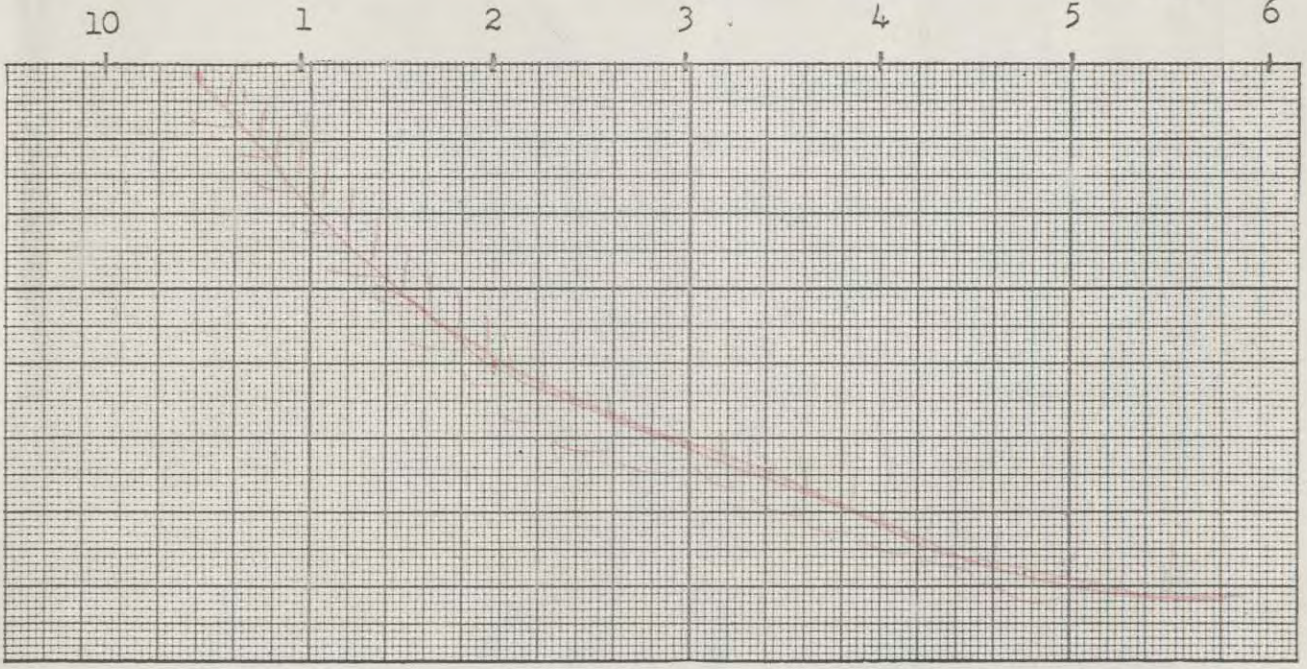
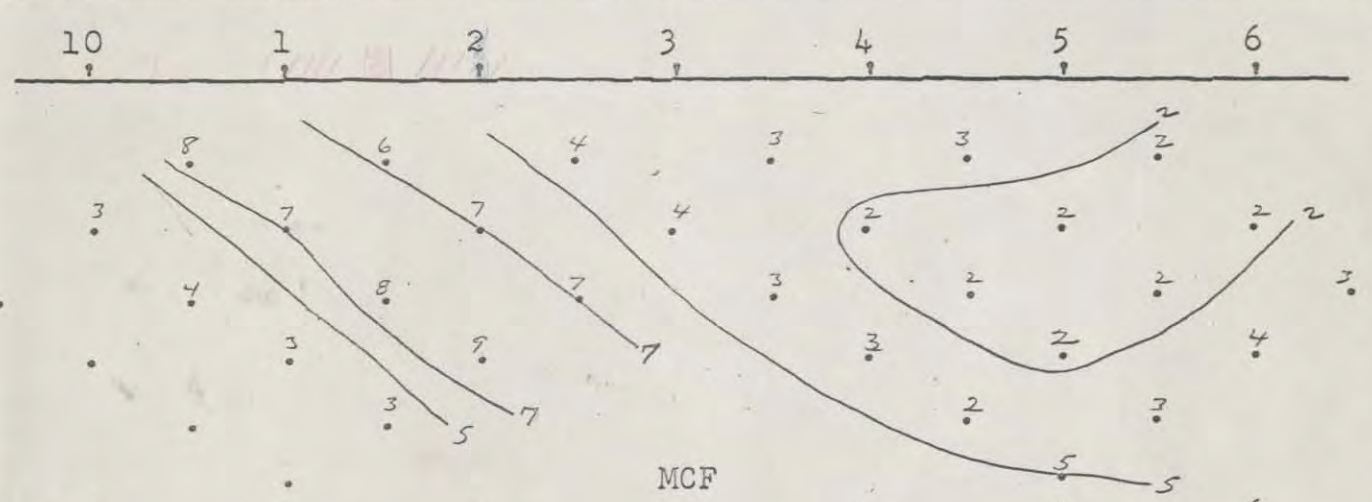
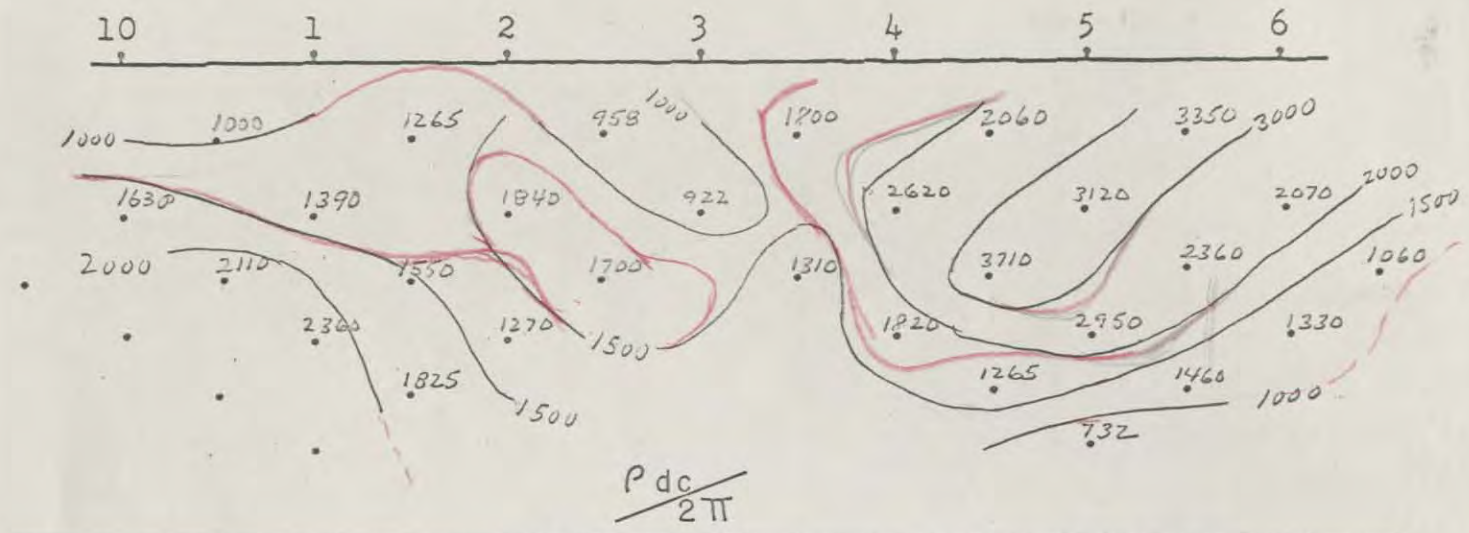


FIGURE NO. 7

SP. - GEOLOGY
 SIMPLOT INDUSTRIES INC.

COORDINATES 3

EAST NORTH

PROJ. Nation Lakes
 LINE 7 205
 BEARING N. 65 E.
 DATE 8/17/66
 NAME Jensen et
 A 200'

FIGURE NO. 7-B

**J. R. SIMPLOT COMPANY
INDUCED POLARIZATION SURVEY COMPUTATION SHEET**

Project Nation Lakes Line 7 A. 200' Data Page 2 Date 8/17/66 Comp. By JJ

Send	2-3	2-1	3-4	2-3	2-1	4-5	3-4	2-3	2-1	4-5	3-4	2-3	2-1
Receive	4-5	4-5	5-6	5-6	5-6	6-7	6-7	6-7	6-7	7-8-9	7-8-9	7-8-9	7-8-9
n	1	2	1	2	3	1	2	3	4	23	24	25	26
Kn x 10 ⁻³										6	12	21	33.6
I										100	100	200	200
Range										30	30	30	10
Vdc										35.4	22.2	27.9	8.70
Vac										35.8	22.0	28.2	8.52
Vac Corr										—	—	—	—
Dc Cal										.500			
Ac-Dc Cal										1.050			
ρ _{dc}										1060	1330	1460	732
ρ _{dc} /ρ _{ac}										1.035	1.058	1.040	1.038
PFE										4	6	4	4
MCF										3	4	3	5

$$Ac\ Corr = \sqrt{(Vac)^2 - (Acn \times 2)^2} \quad \rho_{dc} = Vdc \times \frac{Dc\ Cal \times Kn \times 10^3}{I} \quad \frac{\rho_{dc}}{\rho_{ac}} = Vdc \times \frac{Ac-Dc\ Cal}{Vac\ Corr.}$$

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	4-5
Receive	1-2	1-2	1-10	1-10	1-10	10-11	10-11	10-11	10-11	11-12	11-12	11-12	11-12
n	1	2	1	2	3	1	2	3	4	2	3	4	5
Kn x 10 ⁻³													
I													
Range													
Vdc													
Vac													
Vac Corr													
Dc Cal													
Ac-Dc Cal													
ρ _{dc}													
ρ _{dc} /ρ _{ac}													
PFE													
MCF													

$$Kn \times 10^{-3} = \frac{an(n+1)(n+2) 10^{-3}}{2}$$

$$PFE = \frac{\rho_{dc}}{\rho_{ac}} - 1 (10^2)$$

$$MCF = \frac{\rho_{Dc}}{\rho_{Ac}} - 1 (10^5) / \rho_{Dc}$$

FIGURE NO. 8-A

J. R. SIMPLOT COMPANY
INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Project Nation Lakes Line 8 A. 200' Data Page 1 Date 8/17/66 Comp. By J.J.

Send	2-3	2-1	3-4	2-3	2-1	4-5	3-4	2-3	2-1	4-5	3-4	2-3	2-1
Receive	4-5	4-5	5-6	5-6	5-6	6-7	6-7	6-7	6-7	7-8	7-8	7-8	7-8
n	1	2	1	2	3	1	2	3	4	2	3	4	5
Kn x 10 ⁻³	.6	2.4	.6	2.4	6	.6	2.4	6	12	2.4	6	12	21
I (ma)	120												7
Range	1000	300	1000	300	100	1000	300	100	30	300	100	100	30
Vdc (mv)	993	161	1010	313	75.9	994	267	115	33.2	255	112	60.0	20.1
Vac (mv)	967	157	985	302	73.0	976	260	112	32.8	252	109	59.4	19.9
Vac Corr	—	—	—	—	—	—	—	—	—	—	—	—	—
Dc Cal	.540												7
Ac-Dc Cal	1.050												7
ρ _{dc}	2580	1670	2850	3250	1960	2580	2760	2970	1720	2650	2900	3110	1830
ρ _{dc} /ρ _{ac}	1.080	1.078	1.175	1.085	1.085	1.067	1.080	1.080	1.060	1.062	1.079	1.060	1.065
PFE	8	8	18	9	9	7	8	8	6	6	8	6	7
MCF	3	5	6	3	4	3	3	3	3	2	3	2	4

ACN < .025

$$\text{Ac Corr} = \sqrt{(\text{Vac})^2 - (\text{Acn} \times 2)^2} \quad \rho_{dc} = \text{Vdc} \times \frac{\text{Dc Cal} \times \text{Kn} \times 10^3}{I} \quad \frac{\rho_{dc}}{\rho_{ac}} = \text{Vdc} \times \frac{\text{Ac-Dc Cal}}{\text{Vac Corr}}$$

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	4-5
Receive	1-2	1-2	1-10	1-10	1-10	10-11	10-11	10-11	10-11	11-12	11-12	11-12	11-12
n	1	2	1	2	3	1	2	3	4	2	3	4	5
Kn x 10 ⁻³	.6	2.4	.6	2.4	6	.6	2.4	6	12	2.4	6	12	21
I (ma)	120												7
Range	1000	300	1000	300	100	1000	300	100	30	300	100	30	30
Vdc (mv)	775	158	589	145	49.5	564	160	70.4	28.0	150	82.8	42.9	19.4
Vac (mv)	748	154	574	140	48.1	548	154	67.7	27.2	140	79.4	41.0	18.9
Vac Corr	—	—	—	—	—	—	—	—	—	—	—	—	—
Dc Cal	.540												7
Ac-Dc Cal	1.050												7
ρ _{dc}	2005	1640	1520	1510	1280	1460	1660	1820	1455	1559	2145	2225	1760
ρ _{dc} /ρ _{ac}	1.095	1.078	1.075	1.090	1.086	1.080	1.090	1.095	1.082	1.122	1.095	1.100	1.080
PFE	9	8	8	9	8	8	9	10	8	12	10	10	8
MCF	4	5	5	6	6	5	5	5	6	8	4	5	5

ACN < .025

$$\text{Kn} \times 10^{-3} = \frac{an(n+1)(n+2) 10^{-3}}{2}$$

$$\text{PFE} = \frac{\rho_{dc}}{\rho_{ac}} - 1 (10^2)$$

$$\text{MCF} = \frac{\rho_{dc}}{\rho_{ac}} - 1 (10^5) / \rho_{dc}$$

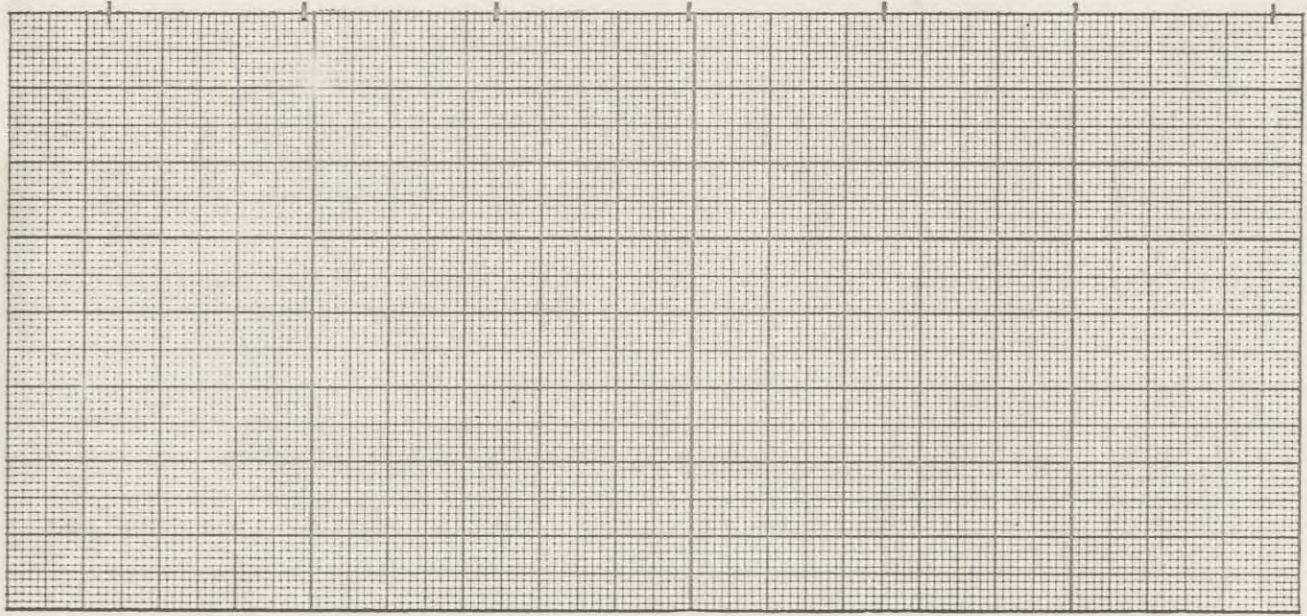
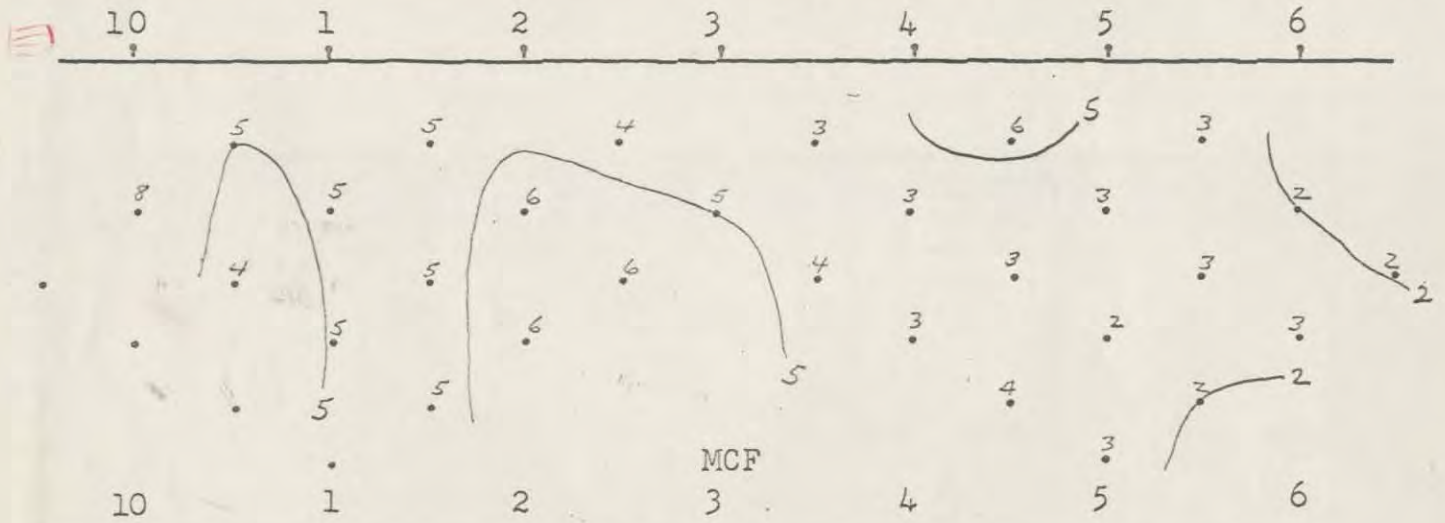
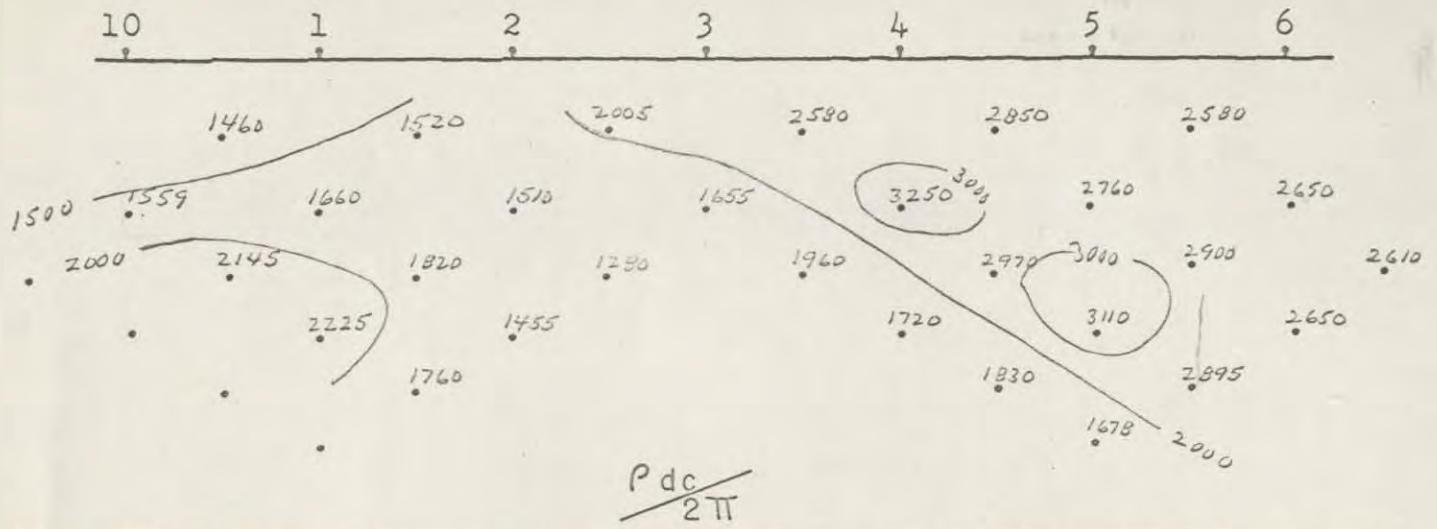


FIGURE NO. 8

SP. - GEOLOGY
SIMPLOT INDUSTRIES INC.

COORDINATES 3

EAST NORTH

PROJ. Nation Lakes
 LINE B 255
 BEARING N65E
 DATE 8/17/66
 NAME Jammett
 A 200'

FIGURE NO. 8-B

**J. R. SIMPLOT COMPANY
INDUCED POLARIZATION SURVEY COMPUTATION SHEET**

Project Nation Lakes Line 8 A. 200' Data Page 2 Date 8/17/66 Comp. By J.J.

Send	2-3	2-1	3-4	2-3	2-1	4-5	3-4	2-3	2-1	4-5	3-4	2-3	2-1
Receive	4-5	4-5	5-6	5-6	5-6	6-7	6-7	6-7	6-7	2-8-9	2-8-9	2-8-9	2-8-9
n	1	2	1	2	3	1	2	3	4	03	04	05	06
Kn x 10 ⁻³										6	12	21	33.6
I										120			
Range										100	100	30	30
Vdc										101	53.9	31.7	11.5
Vac										100	52.7	31.7	11.5
Vac Corr													
Dc Cal										.540			
Ac-Dc Cal										.1050			
ρ _{dc}										2610	2650	2895	1678
ρ _{dc} /ρ _{ac}										1.060	1.081	1.050	1.050
PFE										6	8	5	5
MCF										2	3	2	3

$$Ac\ Corr = \sqrt{(Vac)^2 - (Acn \times 2)^2} \quad \rho_{dc} = Vdc \times \frac{Dc\ Cal \times Kn \times 10^3}{I} \quad \frac{\rho_{dc}}{\rho_{ac}} = Vdc \times \frac{Ac-Dc\ Cal}{Vac\ Corr.}$$

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	4-5
Receive	1-2	1-2	1-10	1-10	1-10	10-11	10-11	10-11	10-11	11-12	11-12	11-12	11-12
n	1	2	1	2	3	1	2	3	4	2	3	4	5
Kn x 10 ⁻³													
I													
Range													
Vdc													
Vac													
Vac Corr													
Dc Cal													
Ac-Dc Cal													
ρ _{dc}													
ρ _{dc} /ρ _{ac}													
PFE													
MCF													

$$Kn \times 10^{-3} = \frac{an(n+1)(n+2) \times 10^{-3}}{2}$$

$$PFE = \frac{\rho_{dc}}{\rho_{ac}} - 1 (10^2)$$

$$MCF = \frac{\rho_{Dc}}{\rho_{Ac}} - 1 (10^5) / \rho_{Dc}$$