BACK TO DIGITAL INDEX

ATTACHMENT 3

Wells within Area of Review

HILMAR CHEESE COMPANY
TABLE 3A: WELL DATA FOR WELLS WITHIN AREA OF REVIEW

Notes	Ref. No.	Owner	T	R	Sec.	Date Drilled	TD (ft)	Type	Status	Aquifer	Ref. Pt.	N/S (ft)	E/W (ft)	Top Perf.	Bottom Perf.
	Hilmar-1	Atlantic Oil Co.	6S	10E	10	5/21/74	8,100	Petroleum	Abandoned 5/74	N/A	NW Cor. Sec. 10	1,245	1,170	1,012	8,100
	Inexco-Nyman-1	Schuster Operating Co.	6S	10E	2	12/21/71	9,300	Petroleum	Abandoned 12/71	N/A	SW Cor. Sec. 2	1,570	1,070	930	9,300
	Lundquist-1	Amerada Petroleum Corp.	6S	10E	16	1/24/69	9,775	Petroleum	Plugged	N/A	NE Cor. Sec. 16	1,200	1,200	766	9,775
	C.B. Young-1	C.F. Braun	6S	10E	14	1/12/76	9,676	Petroleum	Plugged	N/A	NW Cor. Sec. 14	800	900	945	9,676
	Deuss-1	Hilliard	6S	10E	4	5/5/77	8,013	Petroleum	Abandoned 5/77	N/A	SE Cor. Sec. 4	1,980	660	812	8,013
	DW-1	(Richard Lemp)	6S	10E	11	N/A	N/A	Domestic	N/A	N/A	NW Cor. Sec. 11	377	2,137	N/A	N/A
	DW-2	James A. Ahlem	6S	10E	2	1980	115	Domestic	N/A	Unconfined	SW Cor. Sec. 2	138	1,923	75	95
	DW-3	J.R. Santos	6S	10E	2P2	2/28/71	62	Domestic	N/A	Unconfined	SW Cor. Sec. 2	138	1,458	52	62
	DW-4	(Louie Costa)	6S	10E	11	N/A	N/A	Domestic	N/A	N/A	NW Cor. Sec. 11	201	1,446	N/A	N/A
	DW-5	(Augustino Chipponeri)	6S	10E	11	N/A	N/A	Domestic	N/A	N/A	NW Cor. Sec. 11	201	993	N/A	N/A
	DW-6	(Bernice George)	6S	10E	3	N/A	N/A	Domestic	N/A	N/A	SE Cor. Sec. 3	427	126	N/A	N/A
	DW-7	(Frank Silveira)	6S	10E	10	N/A	N/A	Domestic	N/A	N/A	NE Cor. Sec. 10	138	214	N/A	N/A
	DW-8	(Wm. Duncan)	6S	10E	3	N/A	N/A	Domestic	N/A	N/A	SE Cor. Sec. 3	163	654	N/A	N/A
R	DW-9	Frank Silveira	6S	10E	10?	2/20/90	280	Dom./Indust.	N/A	Confined	Address: 20271 W. Johnson Ave. Hilmar (IN-3)			230	250
	DW-10	(John Azevedo)	6S	10E	3	N/A	N/A	Domestic	N/A	N/A	SE Cor. Sec 3	201	993	N/A	N/A
	DW-11	(Matthew J. Canhoto, Jr.)	6S	10E	10	N/A	N/A	Domestic	N/A	N/A	NE Cor. Sec 10	126	2,225	N/A	N/A
	DW-12	Pascel LaBrouche	6S	10E	3	2/11/71	71	Domestic	N/A	Unconfined	SE Cor. Sec 3	163	2,212	61	71
	DW-13	(Frank Silveira)	6S	10E	3	N/A	N/A	Domestic	N/A	N/A	SE Cor. Sec.3	352	2,489	N/A	N/A
	DW-14	(Pasco LaBrouche)	6S	10E	3	N/A	N/A	Domestic	N/A	N/A	SW Cor. Sec. 3	75	2,225	N/A	N/A
R	DW-15	Bettencourt	6S	10E	3?	6/28/77	200	Domestic	N/A	Confined	Address: 20694 Johnson Ave. Hilmar (IW-2)			0	200
	DW-16	(Tony J. Rocha)	6S	10E	3	N/A	N/A	Domestic	N/A	N/A	SW Cor. Sec. 3	189	1,018	N/A	N/A
	DW-17	(Tony J. Rocha)	6S	10E	3	N/A	N/A	Domestic	N/A	N/A	SW Cor. Sec. 3	264	629	N/A	N/A
	DW-18	(Glennette B. Woods)	6S	10E	10	N/A	N/A	Domestic	N/A	N/A	NW Cor. Sec 10	314	126	N/A	N/A
	DW-19	(Daniel D. Easton)	6S	10E	10	N/A	N/A	Domestic	N/A	N/A	NW Cor. Sec 10	1,068	239	N/A	N/A
	DW-20	James A. Ahlem	6S	10E	9	N/A	N/A	Domestic	N/A	N/A	NE Cor. Sec. 9	1,722	251	N/A	N/A
	DW-21	James A. Ahlem	6S	10E	10	7/11/80	N/A	Domestic	N/A	Unconfined	NW Cor. Sec 10	1,886	566	N/A	N/A
R	DW-22	Chuck Ahlem	6S	10E	9?	4/14/77	200	Domestic	N/A	Confined	Address: 9483 Columbus Ave., Hilmar (IW-3)			0	200
	DW-23	Alan Babelle	6S	10E	10	5/25/95	130	Domestic	N/A	Unconfined	SW Cor. Sec. 10	2,451	465	80	100
	DW-24	Jim Babelle/A&B Enterprises	6S	10E	10	10/19/93	133	Domestic	N/A	Unconfined	SW Cor. Sec. 10	2,011	189	106	126
	DW-25	(James C. Babelle)	6S	10E	10	N/A	N/A	Domestic	N/A	N/A	SW Cor. Sec. 10	1,823	201	N/A	N/A
	DW-26	(James Ahlem)	6S	10E	9	N/A	N/A	Domestic	N/A	N/A	SE Cor. Sec. 9	1,006	151	N/A	N/A
	DW-27	William Ahlem	6S	10E	10	10/24/76	95	Domestic	N/A	Unconfined	SW Cor. Sec. 10	603	163	60	80
	DW-28	(James Ahlem)	6S	10E	16	N/A	N/A	Domestic	N/A	N/A	NE Cor. Sec 16	126	993	N/A	N/A
	DW-29	Leith Bergman	6S	10E	10N	7/21/94	175	Domestic	N/A	Unconfined	SW Cor. Sec. 10	138	138	95	115
	DW-30	(Monica Mord)	6S	10E	15	N/A	N/A	Domestic	N/A	N/A	NW Cor. Sec 15	151	151	N/A	N/A
	DW-31	Mord Dairy	6S	10E	10	12/27/76	112	Domestic	N/A	Unconfined	SW Cor. Sec. 10	905	113	102	110
R	DW-32	Allan Peterson	6S	10E	15?	2/27/98	175	Domestic	N/A	N/A	Address: 20819 August Ave., Hilmar (IW-4)			135	155
	DW-33	(Olivia Da Rosa)	6S	10E	15	N/A	N/A	Domestic	N/A	N/A	NW Cor. Sec. 15	189	2,087	N/A	N/A
	DW-34	Martin Nyman	6S	10E	15	10/24/83	95	Domestic	N/A	Unconfined	NE Cor. Sec. 15	189	1,923	75	95
	DW-35	(Nick Munoz)	6S	10E	15	N/A	N/A	Domestic	N/A	N/A	NE Cor. Sec 15	138	1,345	N/A	N/A
	DW-36	(Nick Munoz)	6S	10E	15	N/A	N/A	Domestic	N/A	N/A	NE Cor. Sec. 15	138	1,106	N/A	N/A
	DW-37	(Norman R. Medeiros)	6S	10E	14	N/A	N/A	Domestic	N/A	N/A	NW Cor. Sec. 14	126	189	N/A	N/A
	DW-38	Ken Tagge	6S	10E	11	6/10/78	110	Domestic	N/A	Unconfined	SW Cor. Sec 11	189	930	90	110
	DW-39	(Ben L. Lucas)	6S	10E	11	N/A	N/A	Domestic	N/A	N/A	SW Cor. Sec. 11	189	1,534	N/A	N/A

HILMAR CHEESE COMPANY
TABLE 3A: WELL DATA FOR WELLS WITHIN AREA OF REVIEW

Notes	Ref. No.	Owner	T	R	Sec.	Date Drilled	TD (ft)	Type	Status	Aquifer	Ref. Pt.	N/S (ft)	E/W (ft)	Top Perf.	Bottom Perf.
	DW-40	Morrison Farms	6S	10E	14	3/16/90	142	Domestic	N/A	Unconfined	NW Cor. Sec. 14	176	1,634	90	110
	DW-41	(Hans Bucher)	6S	10E	11	N/A	N/A	Domestic	N/A	N/A	SW Cor. Sec. 11	189	2,275	N/A	N/A
	DW-42	Alan Peterson	6S	10E	14	3/18/91	142	Domestic	N/A	Unconfined	NW Cor. Sec. 14	189	2,627	100	120
	DW-43	(Robert W. Hopgood)	6S	10E	15	N/A	N/A	Domestic	N/A	N/A	NE Cor. Sec. 15	1,622	163	N/A	N/A
	DW-44	George Lundstron	6S	10E	15	2/16/78	110	Domestic	N/A	Unconfined	NE Cor. Sec. 15	1,232	163	90	110
	DW-45	(Balwinder S. Tung)	6S	10E	15	N/A	N/A	Domestic	N/A	N/A	NE Cor. Sec. 15	754	163	N/A	N/A
	DW-46	(Clayton B. Young)	6S	10E	14	N/A	N/A	Domestic	N/A	N/A	NW Cor. Sec. 14	1,031	402	N/A	N/A
	DW-47	(Norman R. Medeiros)	6S	10E	14	N/A	N/A	Domestic	N/A	N/A	NW Cor. Sec. 14	327	189	N/A	N/A
	DW-48	(Phillip G. Larson)	6S	10E	11	N/A	N/A	Domestic	N/A	N/A	SW Cor. Sec 11	201	226	N/A	N/A
	DW-49	N/A	6S	10E	N/A	N/A	N/A	Domestic	N/A	N/A	N/A	0	0	N/A	N/A
	DW-50	(Dean Abbott)	6S	10E	10	N/A	N/A	Domestic	N/A	N/A	SE Cor. Sec. 10	1,257	126	N/A	N/A
	DW-51	(Gemperle Properties)	6S	10E	11	N/A	N/A	Domestic	N/A	N/A	SW Cor. Sec 11	2,439	1,182	N/A	N/A
	DW-52	(Gemperle Properties)	6S	10E	10	N/A	N/A	Domestic	N/A	N/A	NE Cor. Sec. 10	2,577	189	N/A	N/A
	DW-53	Stinson Ranch	6S	10E	11	2/25/91	200	Domestic	N/A	Confined	NW Cor. Sec. 11	2,313	138	175	195
	DW-54	Frank Silveira	6S	10E	10	4/14/87	262	Domestic	N/A	Confined	NE Cor. Sec. 10	1,295	189	230	250
	DW-55	Mendonca & George	6S	10E	3	7/21/82	143	Domestic	N/A	Unconfined	SE Cor. Sec. 3	440	189	76	116
R	DW-56	Joe Silveira	6S	10E	10?	9/24/84	277	Dom./Indust.	N/A	Confined	Address: 20334 Oslo Rd., Hilmar (IN-4)			0	20
	DW-57	(Jose Silveira)	6S	10E	10	N/A	N/A	Domestic	N/A	N/A	NE Cor. Sec. 10	2,803	2,577	N/A	N/A
	DW-58	(Jose Silveira)	6S	10E	10	N/A	N/A	Domestic	N/A	N/A	NE Cor. Sec. 10	2,703	2,137	N/A	N/A
	DW-59	(Jose Silveira)	6S	10E	10	N/A	N/A	Domestic	N/A	N/A	NE Cor. Sec. 10	2,439	2,237	N/A	N/A
	DW-60	(Jose Silveira)	6S	10E	10	N/A	N/A	Domestic	N/A	N/A	NE Cor. Sec. 10	2,552	2,564	N/A	N/A
	DW-61	Nyman Bros. Dairy	6S	10E	10	10/2/98	264	Domestic	N/A	N/A	SE Cor. Sec. 10	251	2,564	90	110
														180	200
	DW-62	H.A. Trautman	6S	10E	15	3/5/96	158	Domestic	N/A	N/A	NW Cor. Sec. 15	2,401	176	90	100
	DW-63	Harry Garrett	6S	10E	15	7/26/78	130	Domestic	N/A	Unconfined	NW Cor. Sec. 15	2,401	1,232	N/A	N/A
	DW-64	(Rose Deus)	6S	10E	15	N/A	N/A	Domestic	N/A	N/A	NW Cor. Sec. 15	2,401	2,237	N/A	N/A
	DW-65	Jim Ahlem	6S	10E	9	5/16/97	175	Domestic	N/A	N/A	SE Cor. Sec. 9	2,288	176	75	105
	DW-66	Jim Ahlem	6S	10E	9	6/16/75	110	Domestic	N/A	Unconfined	SE Cor. Sec. 9	2,288	176	60	70
	DW-67	Jim Babelle	6S	10E	10	2/2/93	275	Domestic	N/A	Confined	SW Cor. Sec. 10	2,011	189	245	265
	DW-68	Louis Costa	6S	10E	11	5/2/88	340	Domestic	N/A	Confined	NW Cor. Sec. 11	201	1,295	220	260
	DW-69	Nyman Bros. Dairy	6S	10E	15	4/8/98	249	Domestic	N/A	N/A	NE Cor. Sec. 15	189	1,923	90	110
														220	240
	DW-70	Maria T. Silva	6S	10E	10	10/5/69	98	Domestic	N/A	Unconfined	NE Cor. Sec. 10	1,295	189	N/A	N/A
R	DW-71	Frank Silveira	6S	10E	10?	5/10/77	200	Domestic	N/A	Confined	Address: 9725 Lander Ave., Hilmar (IW-5)			0	200
D	DW-72	Turlock Irrigation Dist.	6S	10E	11	8/1/97	350	Domestic	N/A	N/A	SW Cor. Sec 11	63	151	N/A	N/A
R	DW-73	Gemperele Farms	6S	10E	11?	10/29/87	277	Industrial	N/A	Confined	Address: 9488 Lander Ave., Hilmar (IN-5)			205	245
	DW-74	Turlock Irrigation Dist.	6S	10E	11	8/12/97	160	Domestic	N/A	N/A	SW Cor. Sec. 11	63	151	100	120
	DW-75	Chuck Ahlem	6S	10E	9	9/23/76	100	Domestic	N/A	Unconfined	SE Cor. Sec. 9	1,559	163	80	100
R	DW-76	Hilmar Cheese Co.	6S	10E	10?	12/1/89	302	Domestic	N/A	Composite	Address: 9001 N. Lander Ave., Hilmar ((IW-6)			80	95
														210	235
	DW-77	Hilmar Cheese Co.	6S	10E	10	9/22/98	294	Domestic	N/A	N/A	SE Cor. Sec. 10	151	113	N/A	N/A
	DW-78	Pete Martino	6S	10E	10	12/19/72	120	Domestic	N/A	Unconfined	NE Cor. Sec. 10	1,823	189	76	96
	DW-79	Homer Shoffner	6S	10E	14	12/3/81	115	Domestic	N/A	Unconfined	NW Cor. Sec 14	1,270	163	95	115
	DW-80	H.A. Trautman	6S	10E	15	9/23/87	215	Domestic	N/A	Confined	NW Cor. Sec. 15	2,388	25	195	215
R	DW-81	Stan Nunes Tiberio Azeved	6S	10E	9?	12/19/79	205	Domestic	N/A	Unconfined	N/A	N/A	N/A	74	114

HILMAR CHEESE COMPANY

TABLE 3A: WELL DATA FOR WELLS WITHIN AREA OF REVIEW

Notes	Ref. No.	Owner	T	R	Sec.	Date Drilled	TD (ft)	Type	Status	Aquifer	Ref. Pt.	N/S (ft)	E/W (ft)	Top Perf.	Bottom Perf.
R	DW-82	Pearce Ranch	6S	10E	11G1	12/7/23	95	Domestic	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	DW-83	Hilmar Water Company	6S	10E	15	9/25/62	190	Dom./Indust.	N/A	N/A	NE Cor. Sec. 15	13	1,244	None	None
R	DW-84	"Wickstrom Pump."	6S	10E	15F1	5/1/32	266	Domestic	N/A	N/A	N/A	N/A	N/A	0	138?
R	DW-85	Turlock Irrigation Dist.	6S	10E	15F1	2/15/57	136	Domestic	N/A	N/A	N/A	N/A	N/A	0	136
R	DW-86	Erlandson Pump District	6S	10E	16	6/3/77	260	Domestic	N/A	Confined	N/A	N/A	N/A	0	260
R	DW-87	Tim Jarrett	6S	10E	15	12/1/92	210	Domestic	N/A	Confined	N/A	N/A	N/A	169	200
R	DW-88	Hilmar Substation	6S	10E	11N1	9/1/40	350	Domestic	N/A	N/A	N/A	N/A	N/A	0	201
R	DW-89	Turlock Irrigation Dist.	6S	10E	15	2/15/57	134	Domestic	N/A	N/A	N/A	N/A	N/A	N/A	N/A
R	DW-90	Turlock Irrigation Dist.	6S	10E	10N	10/18/46	158	Domestic	N/A	N/A	N/A	N/A	N/A	0	138
R	DW-91	Oscar Farr	6S	10E	10G1	3/26/04	247	Domestic	N/A	N/A	N/A	N/A	N/A	0	227
R	DW-92	Gemperle Farms	6S	10E	10	1/16/74	120	Domestic	N/A	Unconfined	Lander Avenue and Lat. 6			0	94
R	DW-93	Ahlem Improvement Dist.	6S	10E	10	1/11/68	136	Domestic	N/A	N/A	N/A	N/A	N/A	0	112
R	DW-94	Canhoto Ranch	6S	10E	10C	12/1/36	240	Domestic	N/A	N/A	N/A	0	0	0	228
	HCC-4	Hilmar Cheese Co.	6S	10E	10	6/9/03	400	Industrial	N/A	N/A	NW Cor. Sec. 10	1,433	2,552	340	380
	IN-1	Hilmar Cheese Co.	6S	10E	10	12/1/89	302	Industrial	N/A	N/A	SE Cor. Sec. 10	553	528	80	95
														210	235
	IN-2	Hilmar Cheese Co.	6S	10E	10	11/16/85	245	Industrial	N/A	Composite	SE Cor. Sec. 10	138	377	100	130
														225	245
	IN-3	Frank Silveira	6S	10E	10	2/20/90	280	Industrial	N/A	Confined	NE Cor. Sec. 10	151	943	230	250
	IN-4	Joe Silveira	6S	10E	10	9/24/84	277	Industrial	N/A	Confined	NE Cor. Sec. 10	2,036	1,609	0	20
	IN-5	Gemperele Farms	6S	10E	11	10/29/87	277	Industrial		Confined	NW Cor. Sec. 11	2,677	189	205	245
	IN-6	Stan Nunes Tiberio Azeved	6S	10E	9	12/19/79	205	Industrial	N/A	Unconfined	SE Cor. Sec. 9	138	930	74	114
	IW-1	(Kenneth Eldon/D. Tagge)	6S	10E	11	N/A	N/A	Irrigation	N/A	N/A	SW Cor. Sec. 11	830	440	N/A	N/A
	IW-2	Bettencourt	6S	10E	3	6/28/77	200	Irrigation	N/A	Confined	SW Cor. Sec. 3	138	1,433	0	200
	IW-3	Chuck Ahlem	6S	10E	9	4/14/77	200	Irrigation	N/A	Confined	SE Cor. Sec. 9	2,288	163	0	200
	IW-4	Allan Peterson	6S	10E	15	2/27/98	175	Irrigation	N/A	N/A	NW Cor. Sec. 15	113	930	135	155
	IW-5	Frank Silveira	6S	10E	10	5/10/77	200	Irrigation	N/A	Confined	NE Cor. Sec. 10	1,295	189	0	200
	IW-6	Hilmar Cheese Co.	6S	10E	10	12/1/89	302	Irrigation	N/A	Composite	SE Cor. Sec. 10	163	126	80	95
														210	235
	IW-7	Pearce Ranch	6S	10E	11G1	12/7/23	97	Irrigation	N/A	N/A	NW Cor. Sec. 11	1,571	1,244	0	58
	IW-8	Wickstrom Pump.	6S	10E	15F1	5/1/32	265	Irrigation	N/A	N/A	NW Cor. Sec. 15	1,961	2,061	0	133
	IW-9	Turlock Irrigation Dist.	6S	10E	15F1	2/15/57	136	Irrigation	N/A	N/A	NW Cor. Sec. 15	1,659	2,237	0	136
	IW-10	Erlandson Pump District	6S	10E	16	6/3/77	260	Irrigation	N/A	Confined	NE Cor. Sec. 16	1,710	277	0	260
	IW-11	Tim Jarrett	6S	10E	15	12/1/92	210	Irrigation	N/A	Confined	NE Cor. Sec. 15	101	101	169	200
	IW-12	Hilmar Substation	6S	10E	11N1	9/1/40	350	Irrigation	N/A	N/A	SW Cor. Sec. 11	427	251	0	294
	IW-13	Turlock Irrigation Dist.	6S	10E	15	2/15/57	134	Irrigation	N/A	N/A	NW Cor. Sec. 15	1,684	1,257	0	133
	IW-14	Turlock Irrigation Dist.	6S	10E	10N	10/18/46	158	Irrigation	N/A	N/A	SW Cor. Sec . 10	1,031	1,320	0	138
	IW-15	Oscar Farr.	6S	10E	10G1	3/26/04	243	Irrigation	N/A	N/A	NE Cor. Sec. 10	2,036	1,961	0	227
	IW-16	Gemperele Farms	6S	10E	10	1/16/74	120	Irrigation	N/A	Unconfined	NE Cor. Sec. 10	2,162	126	0	94
	IW-17	Ahlem Improvement Distric	6S	10E	10	1/11/68	136	Irrigation	N/A	N/A	SW Cor. Sec. 10	2,263	1,345	0	112
	IW-18	Canhoto Ranch	6S	10E	10C	12/1/36	228	Irrigation	N/A	N/A	NW Cor. Sec. 10	629	2,036	0	228
	TID-1?	Leith Bergman	6S	10E		7/21/94	175	Irrigation	N/A	N/A	N/A	N/A	N/A	95	115
	TID-20B	Turlock Irrigation Dist.	6S	10E	9	8/7/58	129	Irrigation	N/A	N/A	SE Cor. Sec. 9	201	1,735	0	128
	TID-38		6S	10E	11	N/A	100	Irrigation	N/A	N/A	NE Cor. Sec. 11	1,534	930	N/A	N/A
	TID-62B	Turlock Irrigation District	6S	10E	14	12/16/64	104	Irrigation	N/A	N/A	NW Cor. Sec. 14	1,898	2,300	0	104

HILMAR CHEESE COMPANY

TABLE 3A: WELL DATA FOR WELLS WITHIN AREA OF REVIEW

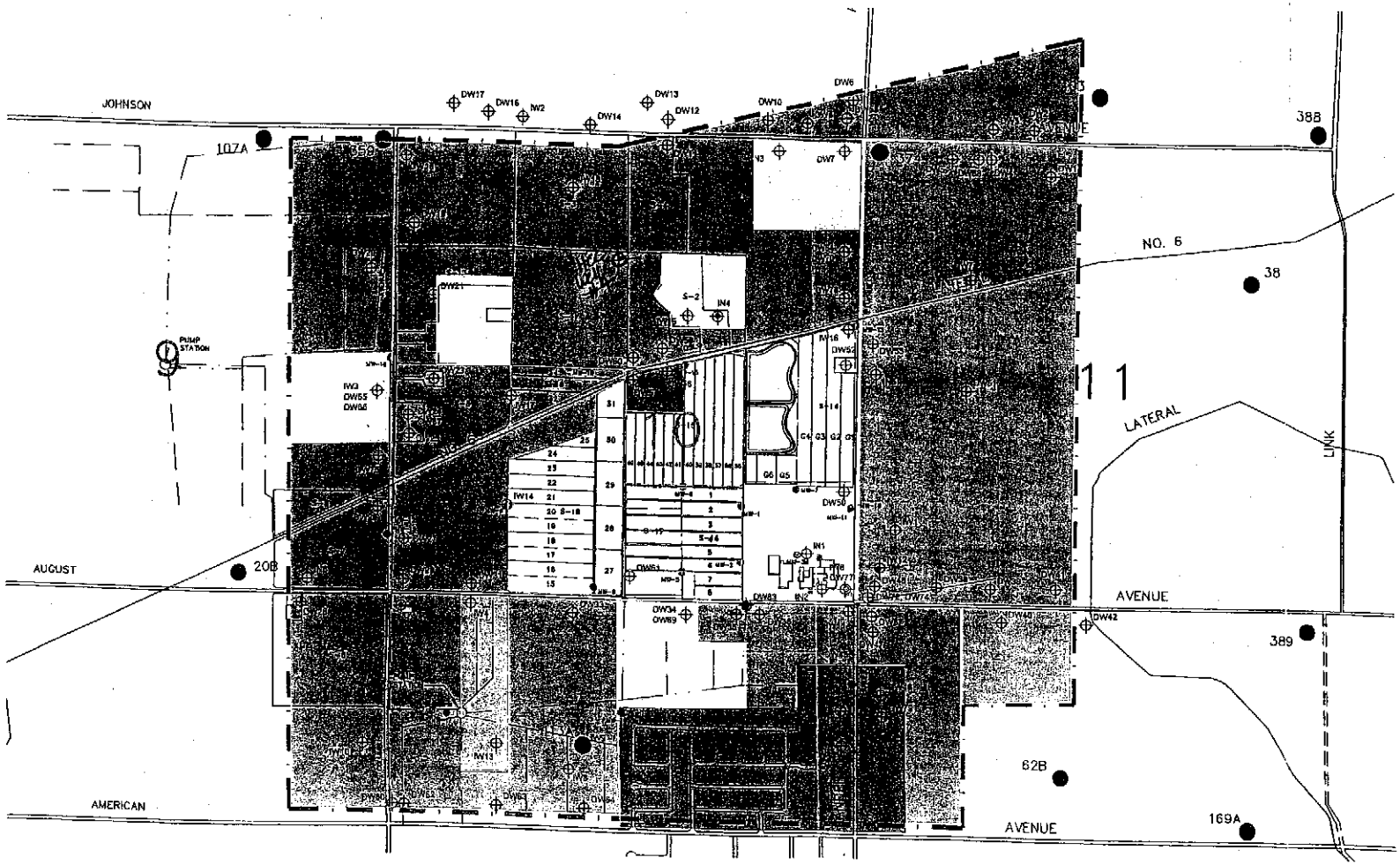
Notes	Ref. No.	Owner	T	R	Sec.	Date Drilled	TD (ft)	Type	Status	Aquifer	Ref. Pt.	N/S (ft)	E/W (ft)	Top Perf.	Bottom Perf.
	TID-64	Oscar Farr	6S	10E	10	3/1/26	240	Irrigation	N/A	N/A	In SW/4 of N/W4	N/A	N/A	0	227
	TID-67A	Turlock Irrigation District	6S	10E	15	6/7/58	112	Irrigation	N/A	N/A	Lot 113	N/A	N/A	0	112
	TID-95B	Turlock Irrigation District	6S	10E	14	1/4/75	96	Irrigation	N/A	N/A	N/A	N/A	N/A	0	96
	TID-103	Turlock Irrigation Dist.	6S	10E	2	10/1/29	160	Irrigation	N/A	N/A	SW Cor. Sec. 2	528	2,640	0	132
	TID-107	Turlock Irrigation District	6S	10E	9B1	6/24/64	266	Irrigation	N/A	N/A	NE Cor. Sec. 9	151	1,483	0	248
	TID-107A	Turlock Irrigation Dist.	6S	10E	9	2/4/65	126	Irrigation	N/A	N/A	NE Cor. Sec. 9	151	1,483	0	116
	TID-109	Turlock Irrigation District	6S	10E	4	12/1/30	227	Irrigation	N/A	N/A	N/A	N/A	N/A	0	139
	TID-110	Turlock Irrigation Dist.	6S	10E	3	12/1/30	303	Irrigation	N/A	N/A	N/A	N/A	N/A	0	96
														248	293
	TID-113A	Turlock Irrigation District	6S	10E	15	2/15/57	136	Irrigation	N/A	N/A	NW Cor. Sec. 15	1,697	2,250	0	136
	TID-133	Turlock Irrigation District	6S	10E	N/A	1/1/37	176	Irrigation	N/A	N/A	(Hilmar Substation)	N/A	N/A	0	96
	TID-169A	Turlock Irrigation District	6S	10E	14	4/8/66	112	Irrigation	N/A	N/A	NE Cor. Sec. 14	2,489	804	0	112
	TID-279	Turlock Irrigation District	6S	10E	15A1	4/2/53	12	Irrigation	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TID-280	Turlock Irrigation District	6S	10E	15R1	3/3/62	12	Irrigation	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TID-359	N/A	6S	10E	9	N/A	N/A	Irrigation	N/A	N/A	NE Cor. Sec. 9	151	126	N/A	N/A
	TID-374	N/A	6S	10E	11	N/A	N/A	Irrigation	N/A	N/A	NW Cor. Sec. 11	126	189	N/A	N/A
	TID-388	N/A	6S	10E	2	N/A	N/A	Irrigation	N/A	N/A	SE Cor. Sec. 2	163	189	N/A	N/A
	TID-389	N/A	6S	10E	14	N/A	N/A	Irrigation	N/A	N/A	NE Cor. Sec. 14	201	189	N/A	N/A
	MW-1	Hilmar	6S	10E	10			Monitoring	Active	Unconfined	SE Cor. Sec. 10	1,068	1,270	N/A	N/A
	MW-2	Hilmar	6S	10E	10			Monitoring	Active	Unconfined	SE Cor. Sec. 10	465	1,270	N/A	N/A
	MW-3	Hilmar	6S	10E	10			Monitoring	Active	Unconfined	SE Cor. Sec. 10	541	629	N/A	N/A
	MW-4	Hilmar	6S	10E	10			Monitoring	Active	Unconfined	N/A	N/A	N/A	N/A	N/A
	MW-5	Hilmar	6S	10E	10			Monitoring	Active	Unconfined	SE Cor. Sec. 10	327	1,973	N/A	N/A
	MW-6	Hilmar	6S	10E	10			Monitoring	Active	Unconfined	SE Cor. Sec. 10	1,307	1,973	N/A	N/A
	MW-7	Hilmar	6S	10E	10			Monitoring	Active	Unconfined	SE Cor. Sec. 10	1,295	629	N/A	N/A
	MW-8	Hilmar	6S	10E	10			Monitoring	Active	Unconfined	SW Cor. Sec. 10	126	2,325	N/A	N/A
	MW-9	Hilmar	6S	10E	10			Monitoring	Active	Unconfined	SW Cor. Sec. 10	1,018	1,320	N/A	N/A
	MW-10	Hilmar	6S	10E	10			Monitoring	Active	Unconfined	NW Cor. Sec. 10	2,690	2,011	N/A	N/A
	MW-11	Hilmar	6S	10E	10	1/14/98	20.5	Monitoring	Active	Unconfined	SE Cor. Sec. 10	1,106	88	10	20.5
	MW-12	Hilmar	6S	10E	9	1/13/98	21.0	Monitoring	Active	Unconfined	SE Cor. Sec. 9	641	25	10	20.5
	MW-13	Hilmar	6S	10E	10	1/13/98	20.5	Monitoring	Active	Unconfined	NE Cor. Sec. 10	2,137	13	10	20.5
	MW-14	Hilmar	6S	10E	15	1/14/98	20.5	Monitoring	Active	Unconfined	NW Cor. Sec. 15	1,282	2,665	10	20.5
	MW-15	Hilamar	6S	10E	10	1/13/98	20.5	Monitoring	Active	Unconfined	NE Cor. Sec. 10	2,640	1,999	10	20.5
	MW-16	Hilmar	6S	10E	10	1/12/98	20.5	Monitoring	Active	Unconfined	SE Cor. Sec. 10	1,081	101	10	20.5
	MW-17	Hilmar	6S	10E	15	1/12/98	20.5	Monitoring	Active	Unconfined	NW Cor. Sec. 15	1,345	704	10	20.5
	MW-18	Hilmar	6S	10E	9	1/14/98	60	Monitoring	Active	Unconfined	NE Cor. Sec. 9	13	2,577	50	60
	MW-19	Hilmar	6S	10E	9	1/13/98	60	Monitoring	Active	Semi-Confined?	SE Cor. Sec. 9	641	25	50	60
	MW-20	Hilmar	6S	10E	15	1/12/98	20.5	Monitoring	Active	Unconfined	NE Cor. Sec. 15	905	13	10	20.5

NOTE

N/A = Information not available.

TABLE 3B: FORMATION TOPS AND THICKNESSES											
							Kreyenhagen Shale		Paleo-Cretaceous Sand		Hall Shale
Operator	Well Name	No.	API No.	Sec.	T	R	Top (ft)	Thickness (ft)	Top (ft)	Net Sand (ft)	Top (ft)
Schusterman Operating Co.	**Inexco-Nyman #1**	**1**	**472001900**	**2**	**6S**	**10E**	**3,071**	**59**	**3,126**	**515.51**	**3,824**
SWEPI		2	470002100	2	7S	10E					
Hilliard Oil & Gas, Inc.	**Deus #1**	**1**	**472005400**	**4**	**6S**	**10E**	**3,151**	**128**	**3,282**	**596.44**	**4,052**
Emerald San Joaquin Corp.	Hillman-Genzoli #1	#1	992004800	4	6S	10E	3,205	137	3,346	588.24	4,123
Mobil Expl. & Prod. N.A., Inc.		1	990005400	5	5S	9E					
Nuevo Energy Company		1	990005500	5	5S	9E					
Great Basins Petroleum Co.	SR-Vaughn #27-6	27-6	990007400	6	6S	10E	3,400	80	3,480	619.59	4,270
Arco Oil & Gas Company		1	990007100	6	6S	9E					
Lawrence A. Thomson. Jr.		1	990007300	6	6S	9E					
Don Pedro Oil Company		1	990007000	9	6S	9E					
Atlantic Oil Company	**Hilmar #1**	**1**	**472003600**	**10**	**6S**	**10E**	**3,173**	**113**	**3,285**	**520.89**	**4,018**
Mobil Expl. & Prod. N.A., Inc.		1	990005700	10	5S	10E					
Reynolds & Carver		1	470001900	10	7S	10E					
Phillips Petroleum Company		1	992001200	12	5S	11E					
C.F. Braun & Company	**Young #1**	**1**	**472004000**	**14**	**6S**	**10E**	**3,310**	**94**	**3,401**	**540.73**	**4,108**
Tesoro Petroleum Corp.		1	470000100	14	5S	11E					
Conoco Inc.		14-1	472007200	14	5S	11E					
Turlock Oil & Gas Co.		1-A	470000500	14	6S	9E					
Turlock Oil & Gas Co.		1	470008100	14	6S	9E					
R.E. Peterson		1	990007200	15	6S	9E					
Amerada Hess Corporation	**Lundquist #1**	**1**	**472000700**	**16**	**6S**	**10E**	**3,309**	**118**	**3,427**	**533.66**	**4,188**
Phillips Petroleum Company		1	472002600	17	7S	10E					
TEPI	Turlock Land #37	37	470001200	18	6S	11E		107			
Delhi Oil Association, Ltd.		1	470001000	19	6S	11E					
L & B Oil Company		1	992002700	20	5S	10E					
Chevron U.S.A. Inc.	Bettencourt #1	1	470000900	21	6S	10E	3,726	166	3,895	527.35	4,679
Phillips Petroleum Company	Clauss #1	1	472008300	21	6S	10E	3,546	122	3,666	611.48	4,450
General Expl. Co. of Calif.		1	470002000	21	7S	10E					
Marathon Oil Company		1	470000200	23	5S	11E					
Phillips Petroleum Company		1	472007400	23	5S	11E					
Starlyn Oil Company		1	470001100	23	6S	11E					
Bob Ferguson Independant	Ferguson 1-24	1	472000600	24	6S	10E	3,349	114	3,460	513.47	4,174
Samuel V. Cornell et al		3	470000600	24	6S	10E					
Delhi Oil Association, Ltd.		2	470000700	24	6S	10E					
Palisades Petroleum Company	Alves #1	1	472000300	25	6S	10E	3,280	186	3,468	510.61	4,215
Hilmar Comm. Oil & Gas Co.	Fausone #1	1	470000800	25	6S	10E					
F.J. Stefanich, Operator	Peterson #1	1	472002700	25	6S	9E	4,050	150	4,200	711.2	5,120
Vern Jones Oil & Gas Corp.		1	472008000	26	5S	11E					
Atlantic Richfield Company		1	470000400	26	6S	9E					
Mobil Expl. & Prod. N.A., Inc.		27-3	990005200	27	5S	9E					
Dover Fiduciary Corporation	Gallo-Hackel #1	1	990005600	28	5S	10E	3,168	77	3,245	520.36	3,960
Hilliard Oil & Gas, Inc.		1	472001700	28	5S	11E					
Nuevo Energy Company	Hayes #1	1	990005800	30	5S	11E	2,835	150	2,985	811.92	3,320
Bob Ferguson Independant		1	472000200	31	6S	11E					
Harry S. Rothschild		1	990005300	34	5S	9E					
Phillips Petroleum Company		1	472007600	35	5S	11E					
Conoco Inc.	Gonsalves #1	1	992000600	36	5S	9E	3,350	22	3,372	641.51	4,180
Oryx Energy Company		1-36	472006600	36	7S	11E					

Note: Wells within one mile of proposed injection wells shown in bold font. Data for all wells used in geologic mapping included in table.



Scale: 1"=1200'

LEGEND

2,500 FEET FROM SITE

DW - DOMESTIC WELL

IN - INDUSTRIAL WELL

IW - IRRIGATION WELL

LAND USE

DAIRY

IRRIGATED AGRICULTURE

ORCHARD

RESIDENTIAL

Hilmar Cheese Company, Hilmar, California

Land Uses Within
2,500 foot Boundary, Revised

BROWN AND CALDWELL
2701 Prospect Park Drive
Rancho Cordova, CA 95670 (916)444-0123

Project 18875-025

Date 1-23-02

Figure

Attachment 3

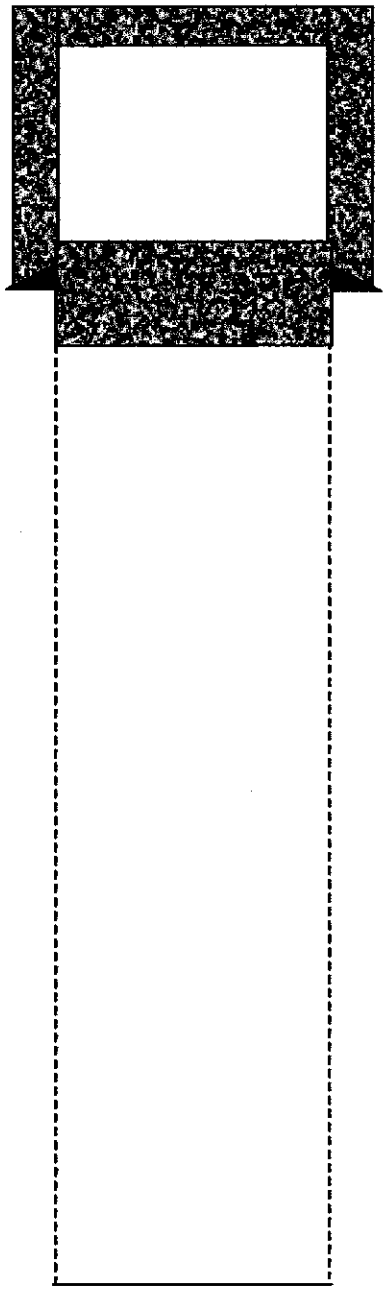
P:18875\CAD\FigY-LandUse-Rev.dwg

PETROLEUM WELLS

Atlantic "Hilmar" 1

Hilmar Area: Hilmar #1
1245' S + 1170' E f/NW corner, sec. 10, T6S/R10E, MDB&M

KB = 110' (GL + 12')



Well drilled & logged, then plugged and abandoned in 5-74.

10 3/4" 40.5# J-55 csg cem @ 1,012' to surface w/804 sx

Cement plugs @ 5-30'; 924-1,095'. Remaining hole filled with drilling mud.

8 3/4" hole drilled to 8,100'

TD = 8,100'

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

DIVISION OF OIL AND G
RECEIVED
OCT 21 1974
WOODLAND, CALIFORNI

WELL SUMMARY REPORT

SUBMIT IN DUPLICATE

Operator Atlantic Oil Company, Well No. Hilmar #1, API No.

Sec. 10, T. 6S, R. 10E, M.D. B. & M., Wildcat Field, Merced County.

Location 1245' South and 1170' East from Northwest corner of Section 10
(Give surface location from property or section corner, or street center line and/or lambert coordinates)

Elevation of ground above sea level 98 feet.

All depth measurements taken from top of Kelly Bushings 110 which is 12' feet above ground.
(Derrick Floor, Rotary Table or Kelly Bushing)

In compliance with Sec. 3215, Division 3 of the Public Resources Code, the information given herewith is a complete and correct record of the present condition of the well and all work done thereon, so far as can be determined from all available records.

Date 10-17-74 Signed Paul P. Stroud

Bear & Kistler (Engineer or Geologist) OCT 23 1974 Title Drilling Superintendent

Commenced drilling May 8, 1974

Completed drilling May 21, 1974

Total depth (1st hole) 8100' (2nd) (3rd)

Present effective depth

Junk

Abandoned

GEOLOGICAL MARKERS	DEPTH
Top Tracey Sand	7916'

Formation and age at total depth

Commenced producing (Date) Flowing/gas lift/pumping (Cross out unnecessary words)

Name of producing zone

	Clean Oil bbl. per day	Gravity Clean Oil	Per Cent Water including emulsion	Gas Mcf. per day	Tubing Pressure	Casing Pressu
Initial production						
Production after 30 days						

CASING RECORD (Present Hole)

Size of Casing (A. P. I.)	Depth of Shoe	Top of Casing	Weight of Casing	Grade and Type of Casing	New or Second Hand	Size of Hole Drilled	Numbers of Sacks or Cubic Feet of Cement	Depth of Cementi if through perforations
10 3/4"	1012'	0'	40#	J55 ST&C	New	15"	804 Sks	

PERFORATED CASING

(Size, top, bottom, perforated intervals, size and spacing of perforation and method.)

Was the well directionally drilled? No If yes, show coordinates at total depth

Electrical log depths 8100' Other surveys

FORM 100 (REV. 1-73) ATTACH ONE COPY OF EACH LOG AND SURVEY

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED
OCT 21 1974
WOODLAND, CALIFORNIA

History of Oil or Gas Well

OPERATOR Atlantic Oil Company FIELD Wildcat

Well No. Hilmar #1, Sec. 10, T. 6S, R. 10E, M.D. B. & M.

Date October 17, 19 74 Signed Paul P. Stroud

P. O. Box 6187
Long Beach, California 90806 213-424-8175 Title Drilling Superintendent
(Address) (Telephone Number) (President, Secretary or Agent)

It is of the greatest importance to have a complete history of the well. Use this form to report a full account of all important operations during the drilling and testing of the well or during re-drilling, altering of casing, plugging, or abandonment with the dates thereof. Be sure to include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests, shooting and initial production data.

Date	
1974	ATLANTIC OIL COMPANY RIG #12:
May 8	Spudded in with 15" bit, lost circulation in cellar, plugged same with 105 sks of cement with drill pipe hung at 315'.
" 10	1020' ran 10 3/4" 40# J55 casing to 1012', cemented same with 804 sks class 'G' cement mixed with 2% calcium chloride. Good returns to surface.
11	Installed and tested blow out equipment and drilling ahead with 8 3/4" bit.
" 21	8100' total depth, ran induction log.
" 22	Hung open end drill pipe at 1095', equalized 110 sks class 'G' cement. top of cement at 924' witnessed and approved. Plugged 10 3/4" casing with cement from 5' to 30', welded steel plate on 10 3/4" casing stub. Abandoned well and location.

FORM 159

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF WELL ABANDONMENT

Coalinga, California

March 13, 1975

WILDCAT LIST 1974

Mr. Ernest L. Bolley, Agent
ATLANTIC OIL COMPANY
523 W. 6th Street, Room 1116
Los Angeles, CA 90014

DEAR SIR:

Your report of abandonment of Well No. "Bilmar" 1 (047-20036), Sec. 10, T. 6S, R. 10E, M D B. & M., --- field, Merced County, dated 10-17-74, received 10-23-74, has been examined in conjunction with records filed in this office.

A review of the reports and records shows that the requirements of this Division, which are based on all information filed with it, have been fulfilled.

THE:fd
Blanket Bond
cc: Company
Conservation Committee

JOHN F. MATTHEWS, JR.
State Oil and Gas Supervisor

By H. W. Hunter
Deputy Supervisor
H.F.M.

Schlumberger

INDUCTION-ELECTRICAL LOG

COUNTY MERCED
FIELD or LOCATION HILMAR AREA
WELL HILMAR NO. 1
COMPANY ATLANTIC OIL CO.

COMPANY ATLANTIC OIL COMPANY
WELL HILMAR NO. 1
FIELD HILMAR AREA
COUNTY MERCED STATE CALIFORNIA

OCT 23 1974
DIVISION OF OIL AND GAS
RECEIVED
OCT 21 1974
WOODLAND, CALIFORNIA

LOCATION 1245' SOUTH & 1170' EAST FROM NORTHWEST CORNER
Sec. 10 Twp. 6S Rge. 10E
API Serial No. 047-20096

Other Services: NONE

Permanent Datum: GL
Log Measured From KB 12.5 Ft. Above Perm. Datum
Drilling Measured From KB
Elev. 97.5
Elev.: K.B. 110 D.F. -- G.L. 97.5

Date	5-21-74										
Run No.	ONE										
Depth—Driller	8100										
Depth—Logger	8084										
Btm. Log Interval	8083										
Top Log Interval	1013										
Casing—Driller	10¾" @ 1012										
Casing—Logger	1013										
Bit Size	8¾"										
Type Fluid in Hole	LIGNOSULFONATE										
Dens. / Visc.	80.5 / 44										
pH / Fluid Loss	9.80 / 5.5 ml										
Source of Sample	CIRCULATED										
R_m @ Meas. Temp.	3.25@80 °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F
R_{mf} @ Meas. Temp.	3.15@80 °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F
R_{mc} @ Meas. Temp.	2.27@64 °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F
Source: R_{mf} / R_{mc}	M / M										
R_m @ BHT	1.65@150°F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F
Time Since Circ.	4 HOURS										
Max. Rec. Temp.	150°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F
Equip. Location	7503 SAC										
Recorded By	FRIDLEY										

LD HERE The well name, location and borehole reference data were furnished by the customer.

MARKS S.O. 05618

anges in Mud Type or Additional Samples

ite / Sample No.			
pth—Driller			
pe Fluid in Hole			
Dens. / Visc.			
ph / Fluid Loss	ml		
Source of Sample			
R_m @ Meas. Temp.	@ °F	@ °F	
R_{mf} @ Meas. Temp.	@ °F	@ °F	
R_{mc} @ Meas. Temp.	@ °F	@ °F	
Source: R_{mf} / R_{mc}			
R_m @ BHT	@ °F	@ °F	
R_{mf} @ BHT	@ °F	@ °F	
R_{mc} @ BHT	@ °F	@ °F	

Scale Changes

Type Log	Depth	Scale Up Hole	Scale Down Hole
RESISTIVITY	7820	0-20	0-30

Equipment Data

Run No.	Tool Type	Tool Position	Other
ONE	6FF40	STANDOFF	

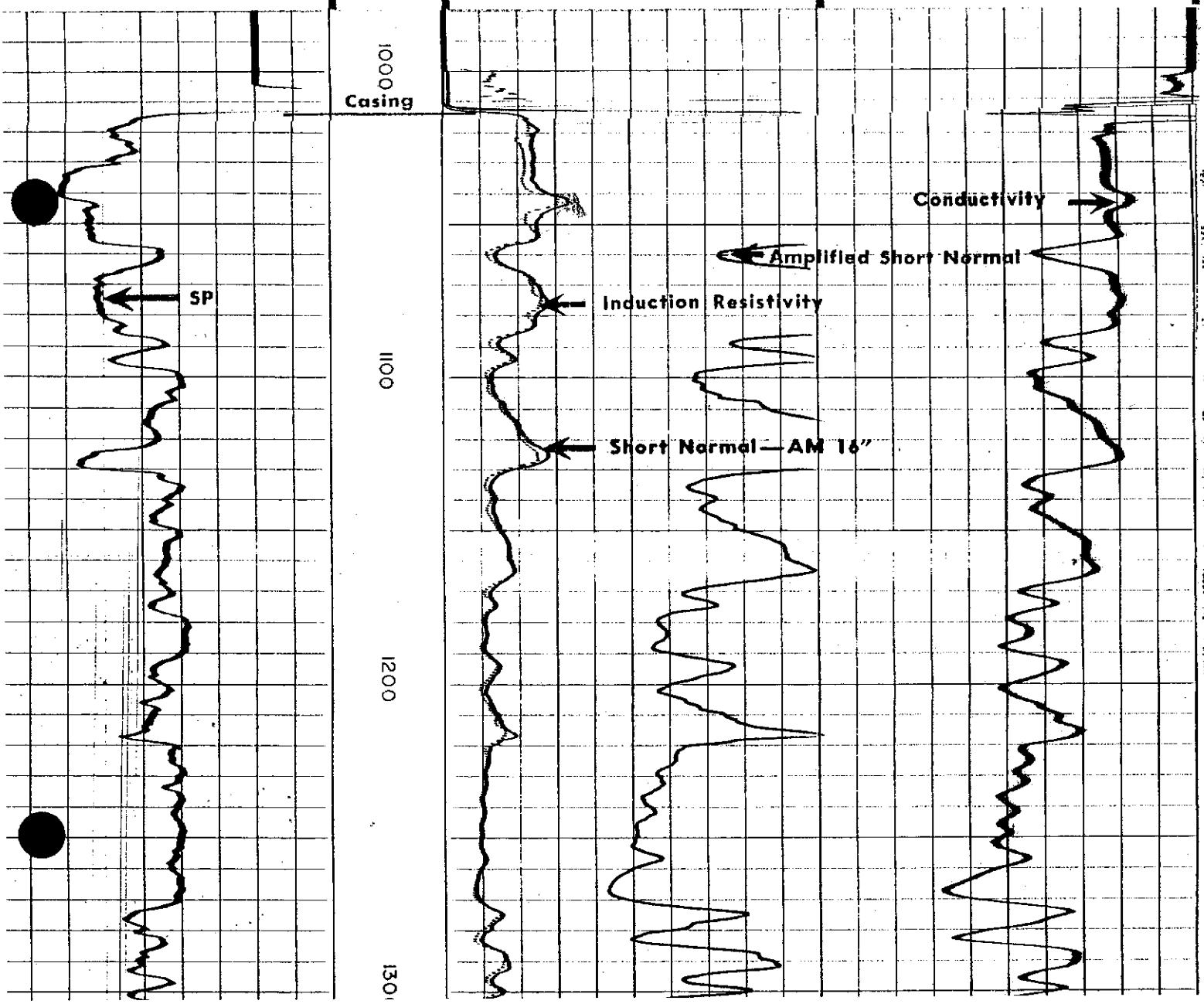
Run No.: ONE
C.D.: USED
S.O.: 1½"
uip. PANEL No.: IRP-H 490
ed CART. No.: IRC-F 419
ONDE No.: IRS-M 585
IAP No.: MMP-B 410
S.B.R.: 1

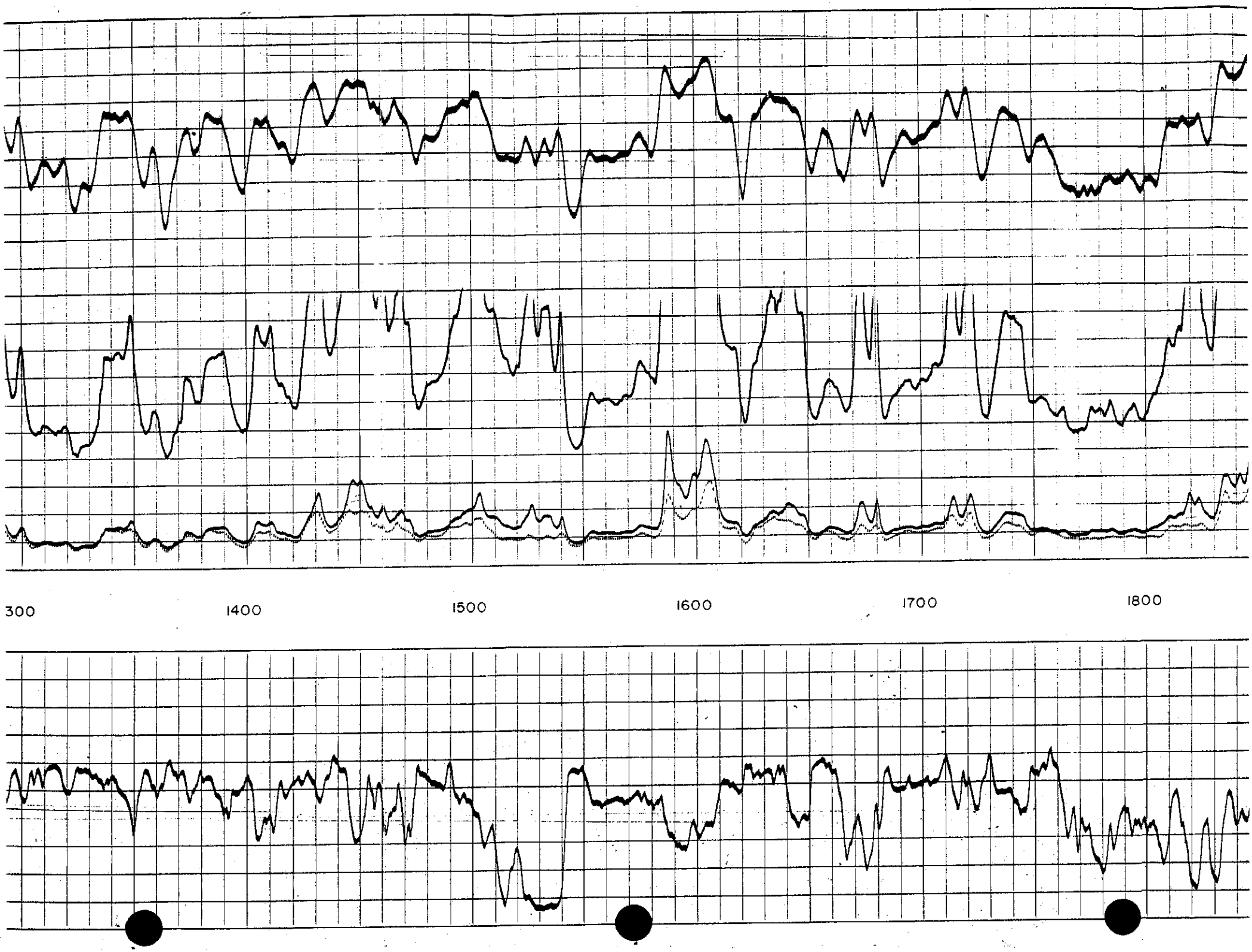
Check one, filling in blanks where applicable:
[X] Surface determined sonde errors used for 6FF40.
[ ] 6FF40 sonde error corrected for inch

Check one, filling in blanks where applicable:

- [X] Surface determined sonde errors used for 6FF40.
- [ ] 6FF40 sonde error corrected for _____ inch borehole signal at Rm =
- [ ] 6FF40 zero set in hole at depth of _____ feet.

SPONTANEOUS-POTENTIAL MILLIVOLTS	DEPTHS	RESISTIVITY OHMS. M²/M	CONDUCTIVITY MILLIMHOS/M = 1000 / OHMS. M²/M
10 (− ↔ +)		A - 16" - M SHORT NORMAL 0 – 20	6FF40 INDUCTION 1000 – 0
		0 – 200	
		INDUCTION 0 – 20	
		0 – 200	
		AMP. SHORT NORMAL 0 – 4	

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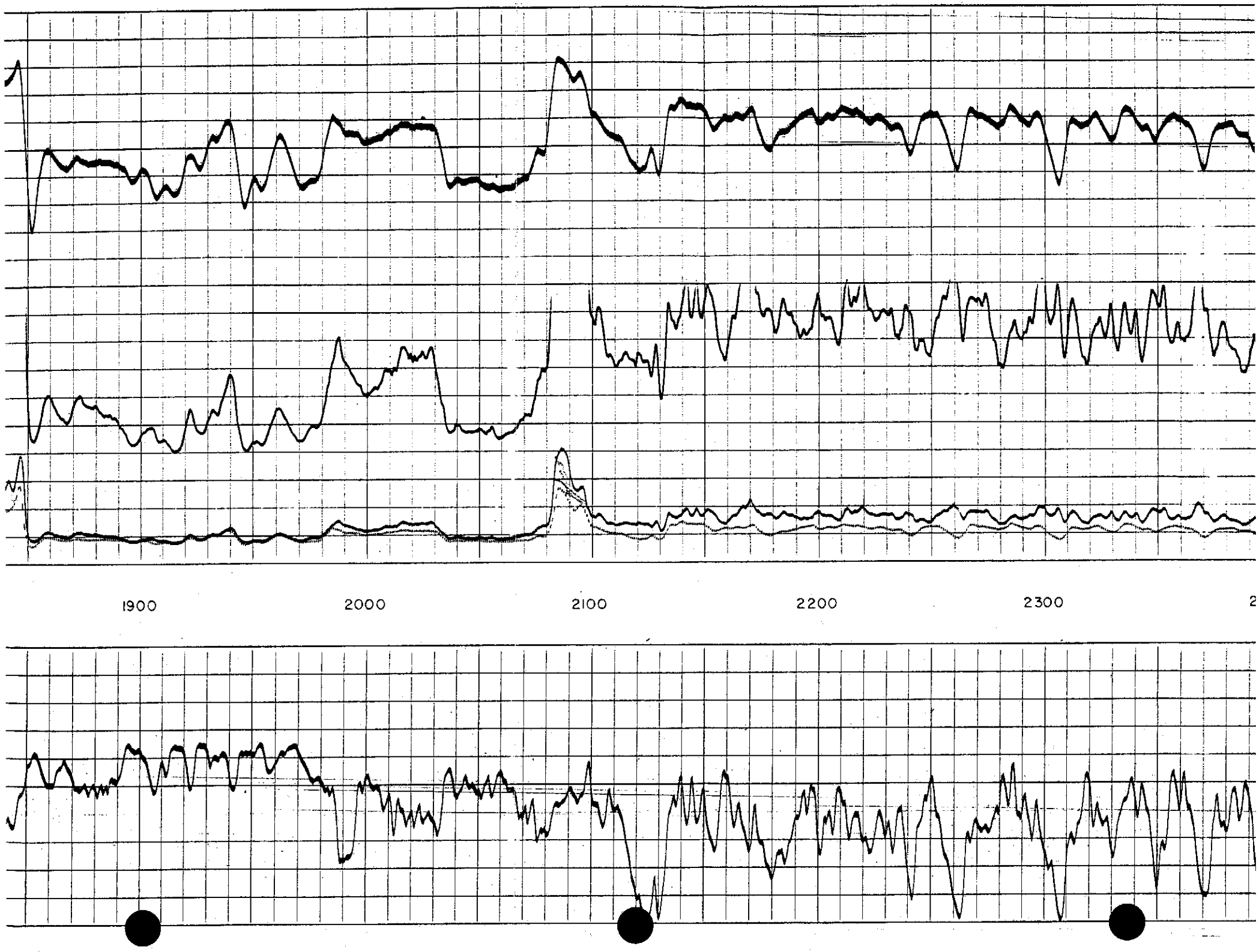
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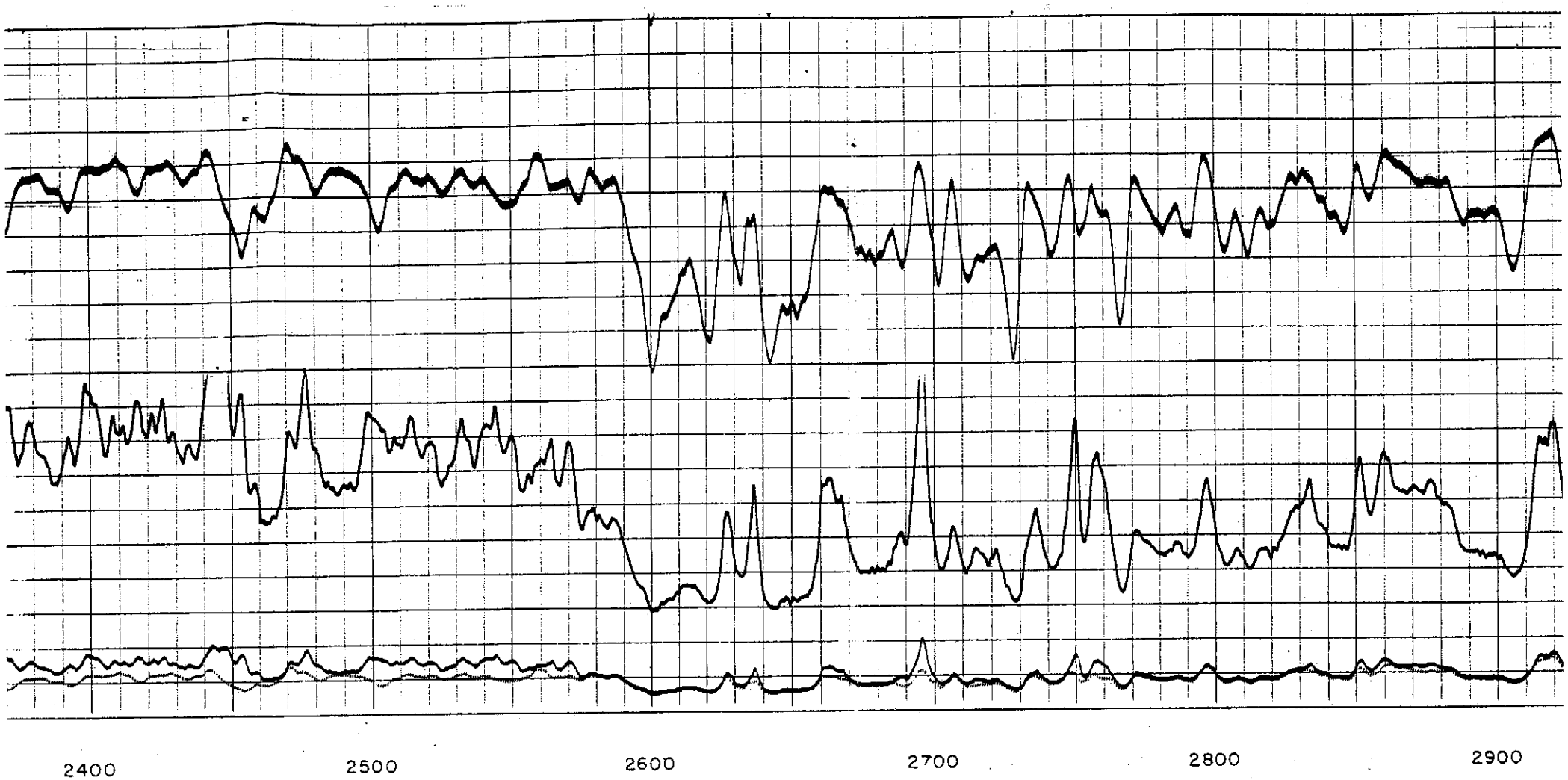
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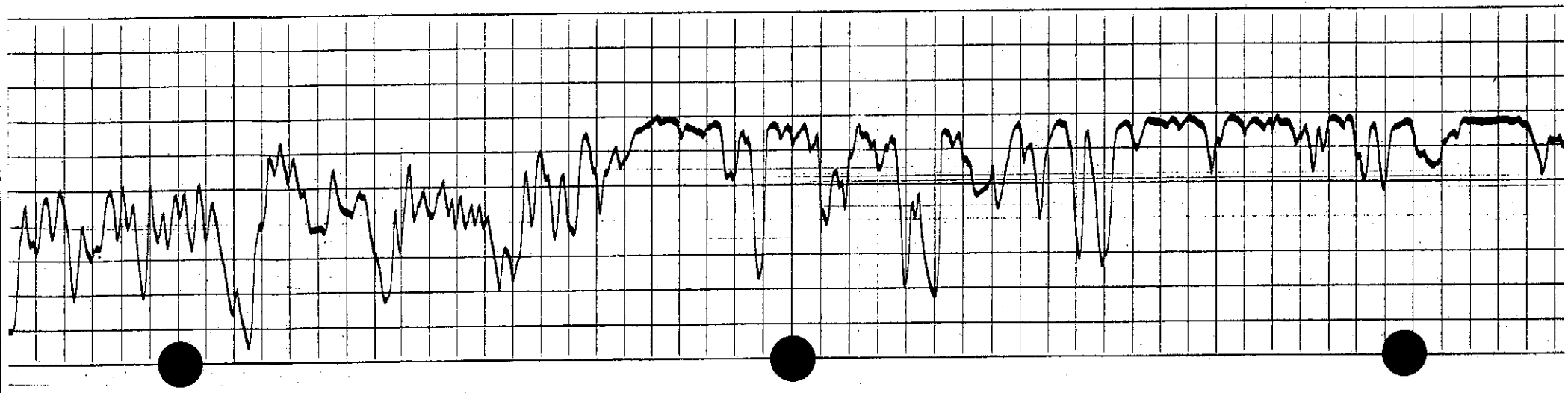
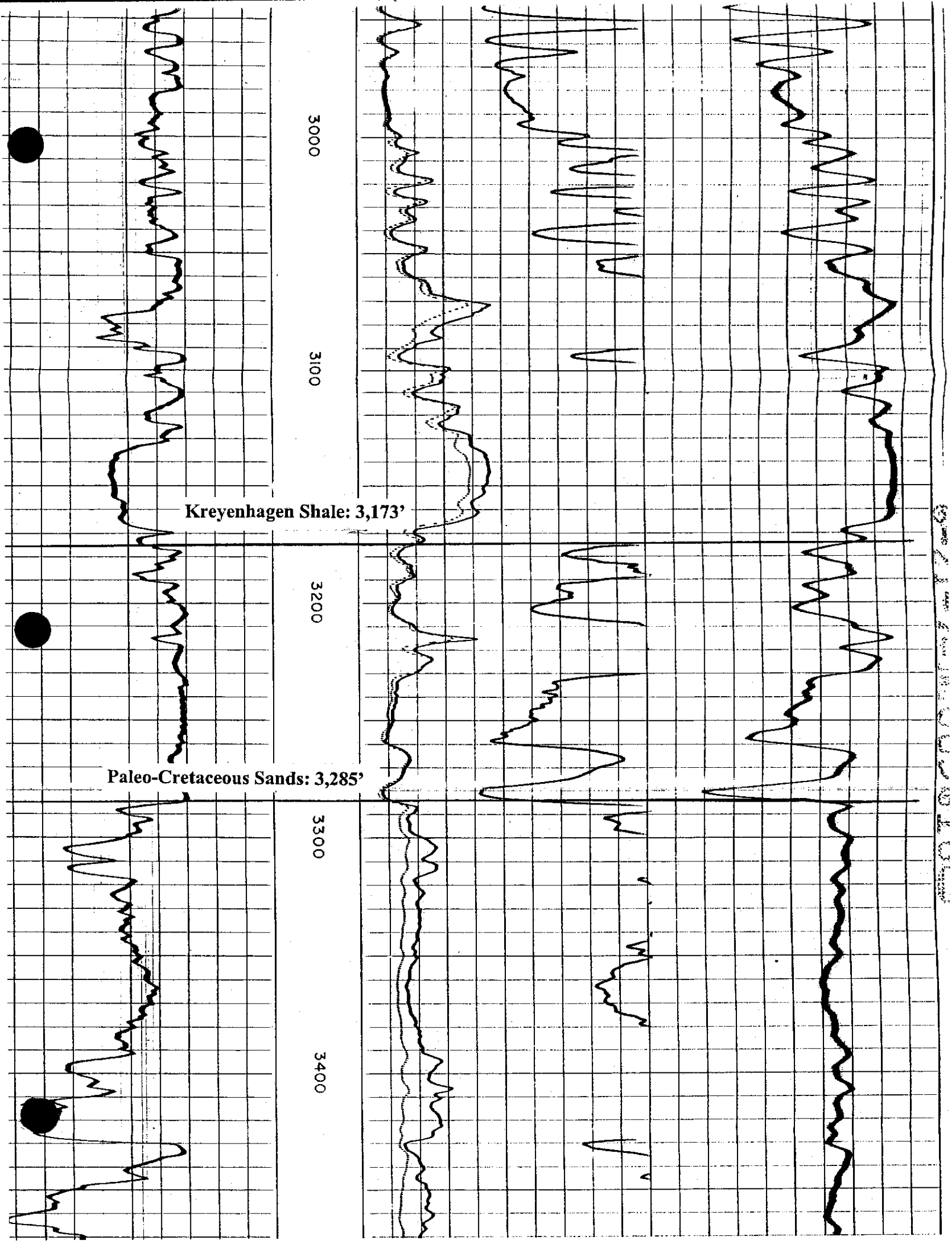
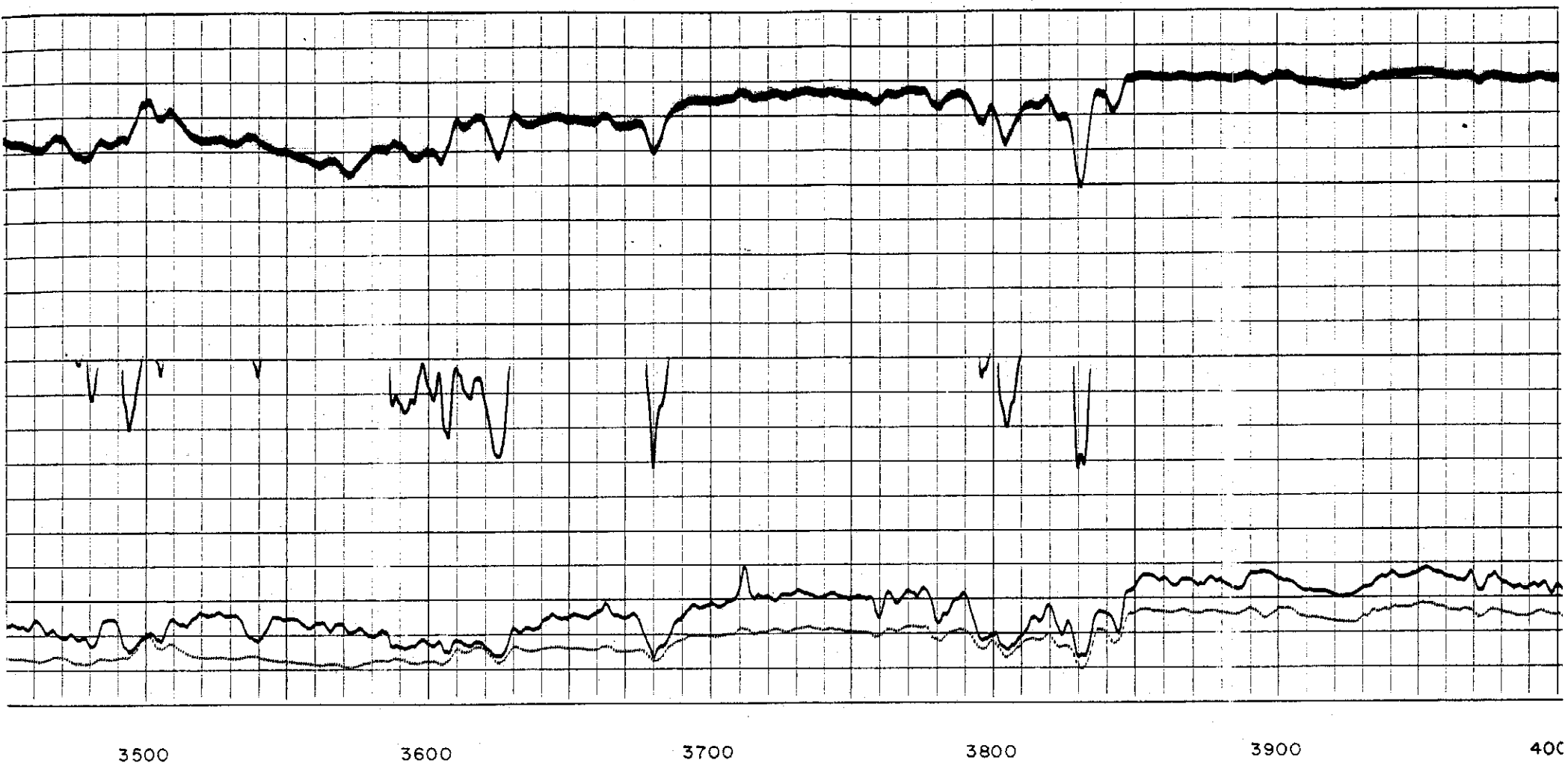



3000
3100
Kreyenhagen Shale: 3,173'
3200
Paleo-Cretaceous Sands: 3,285'
3300
3400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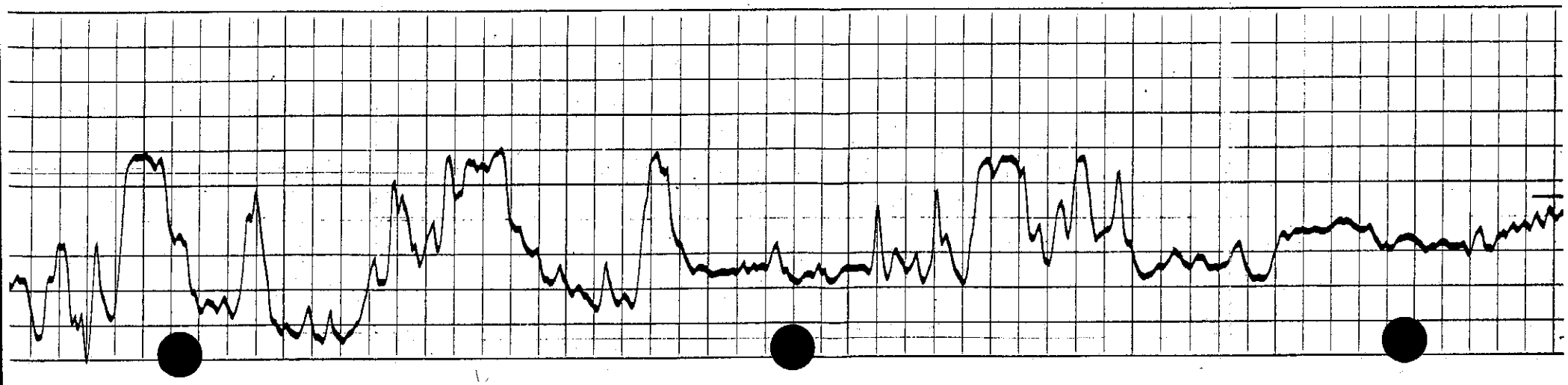

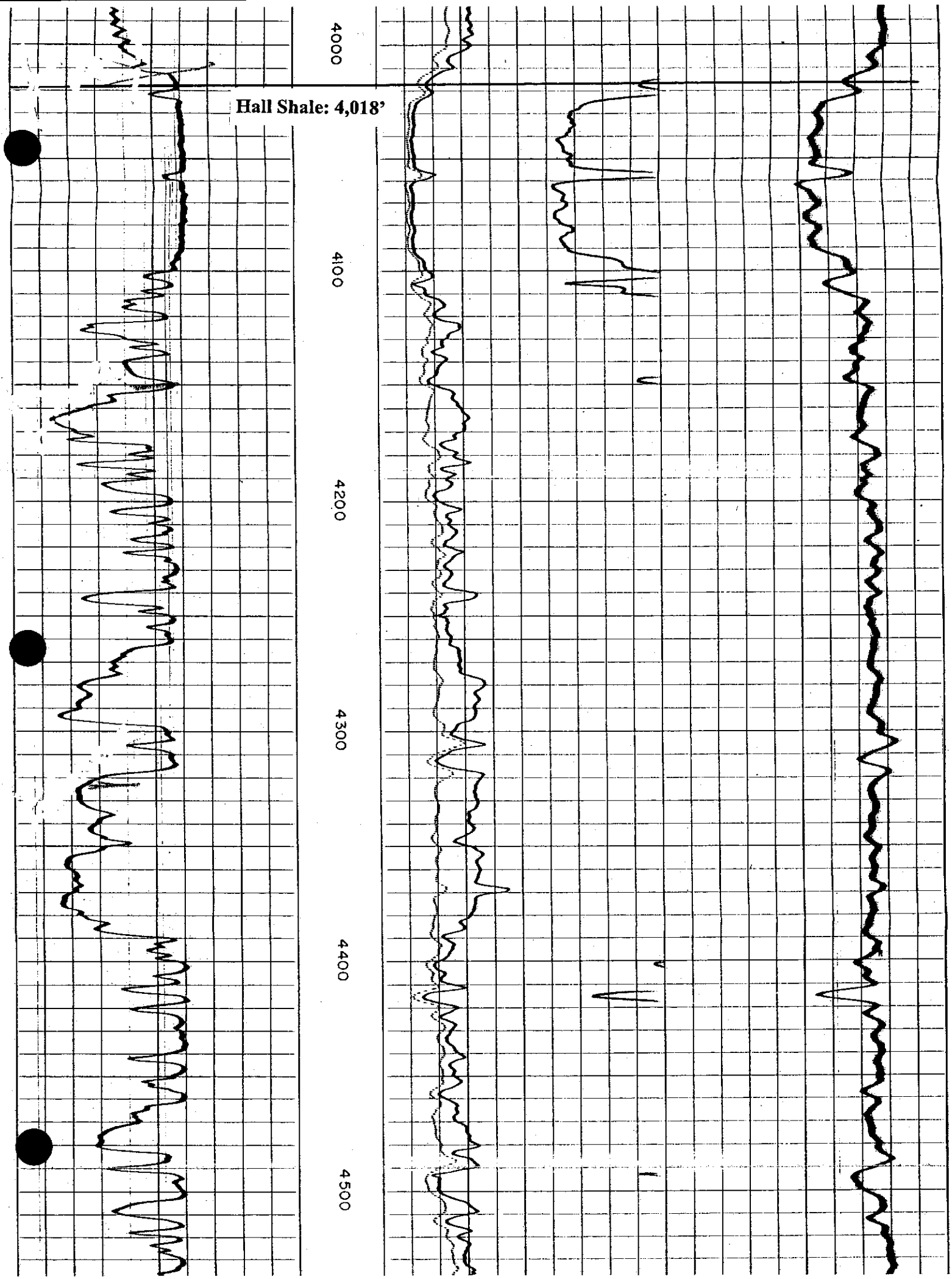
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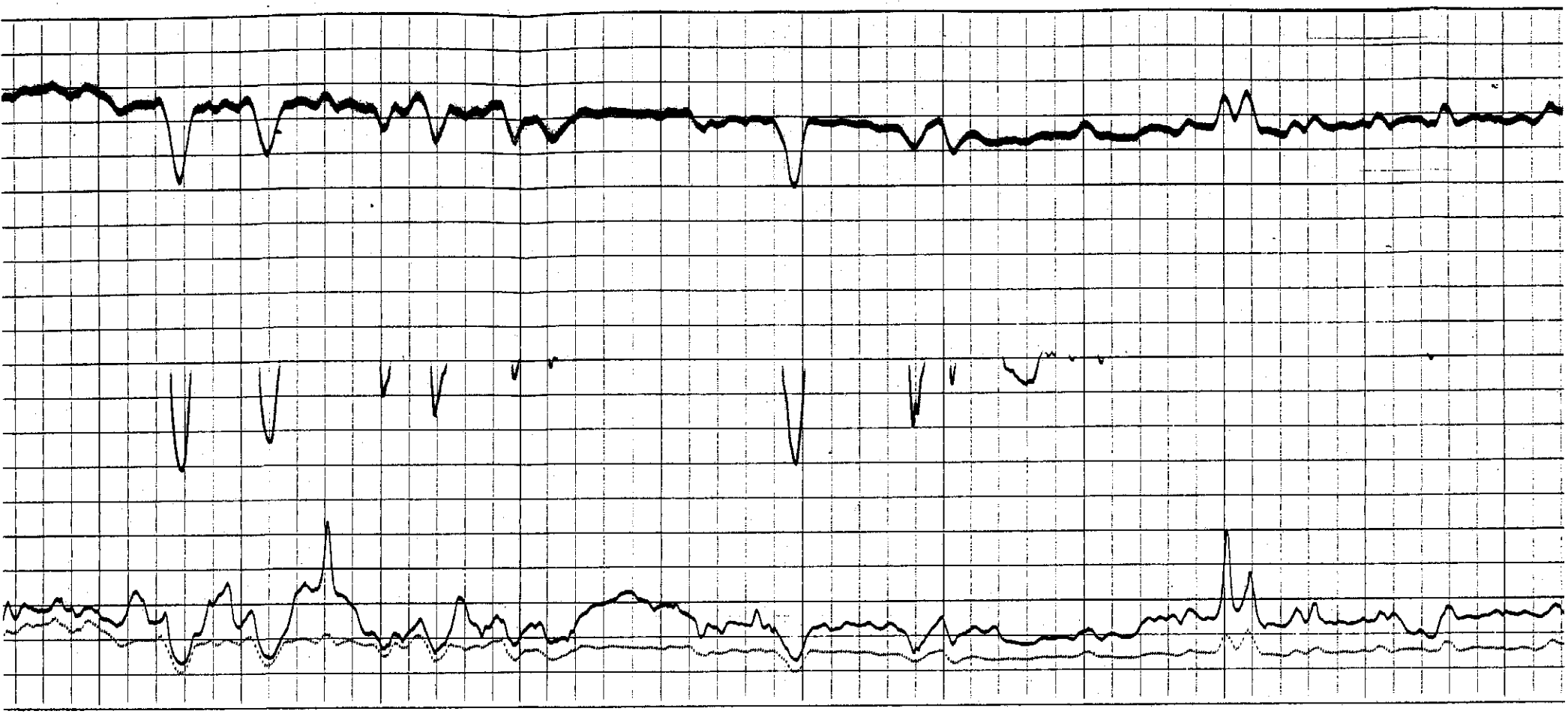

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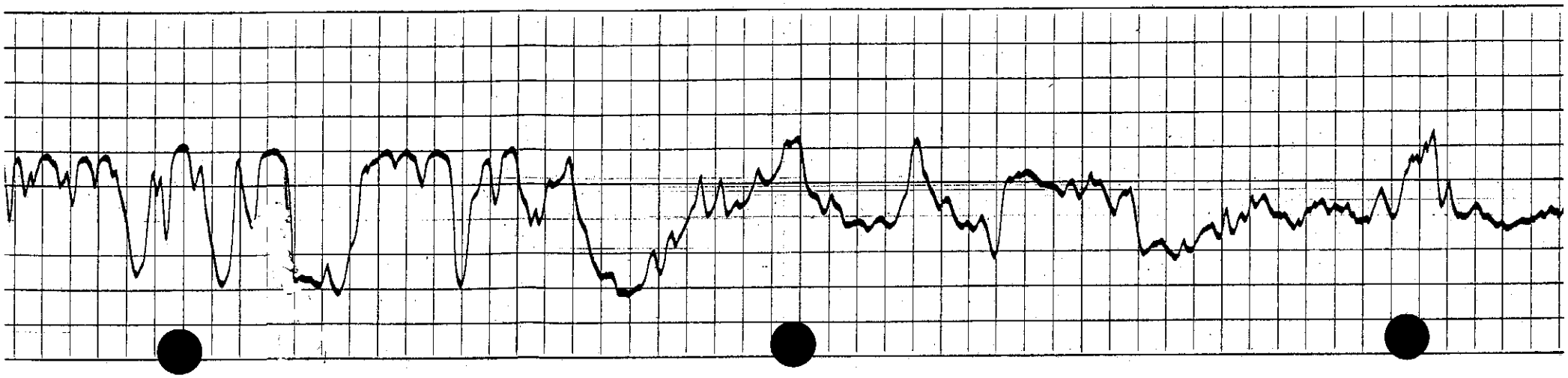

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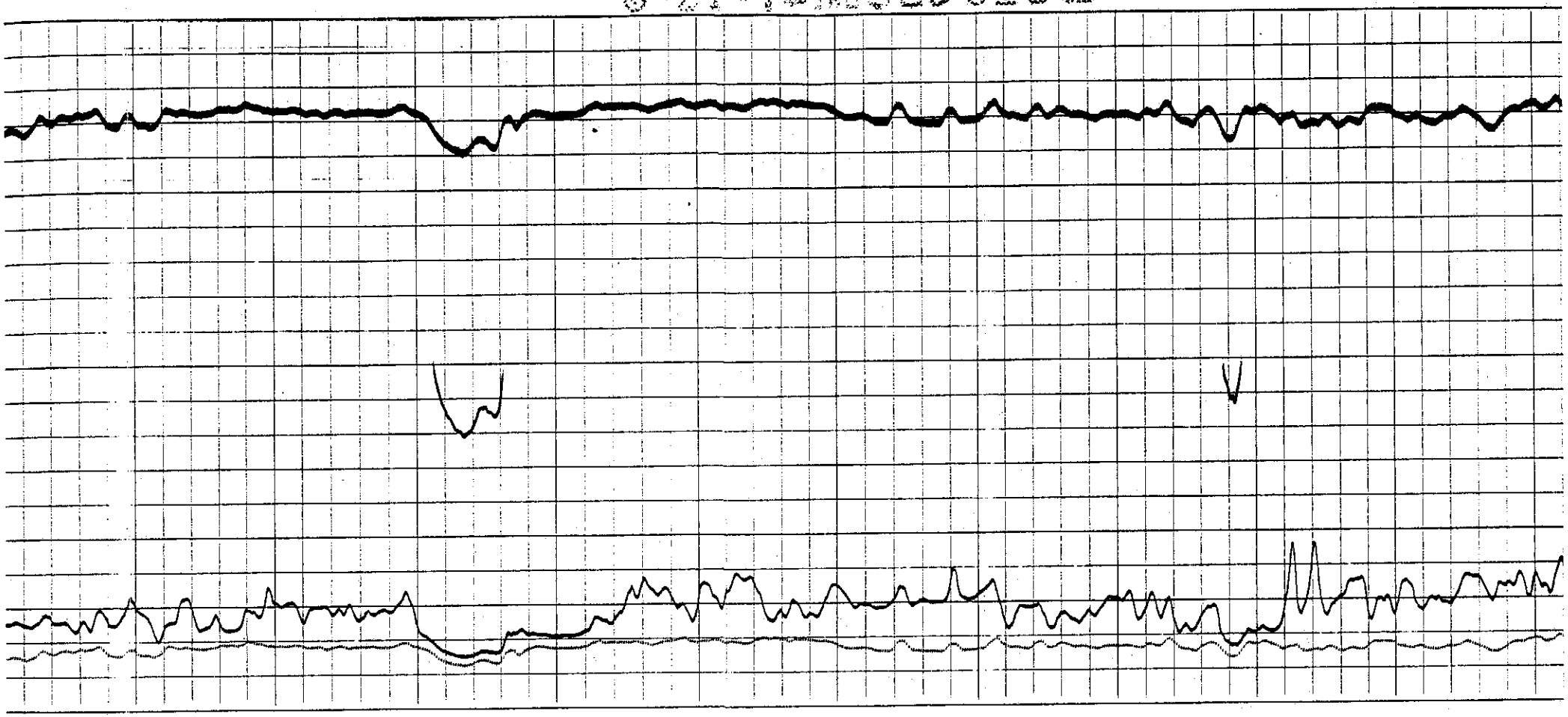

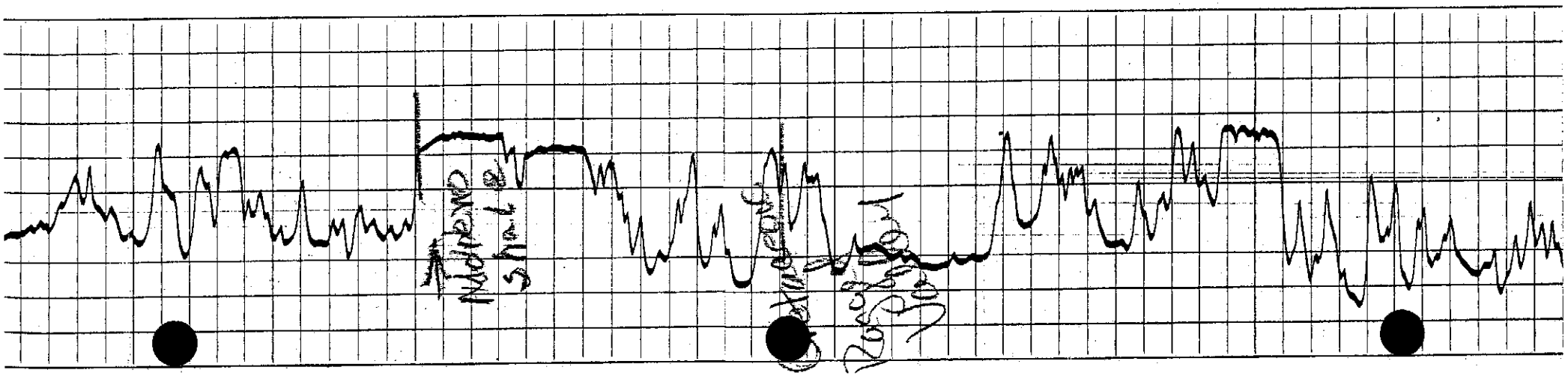

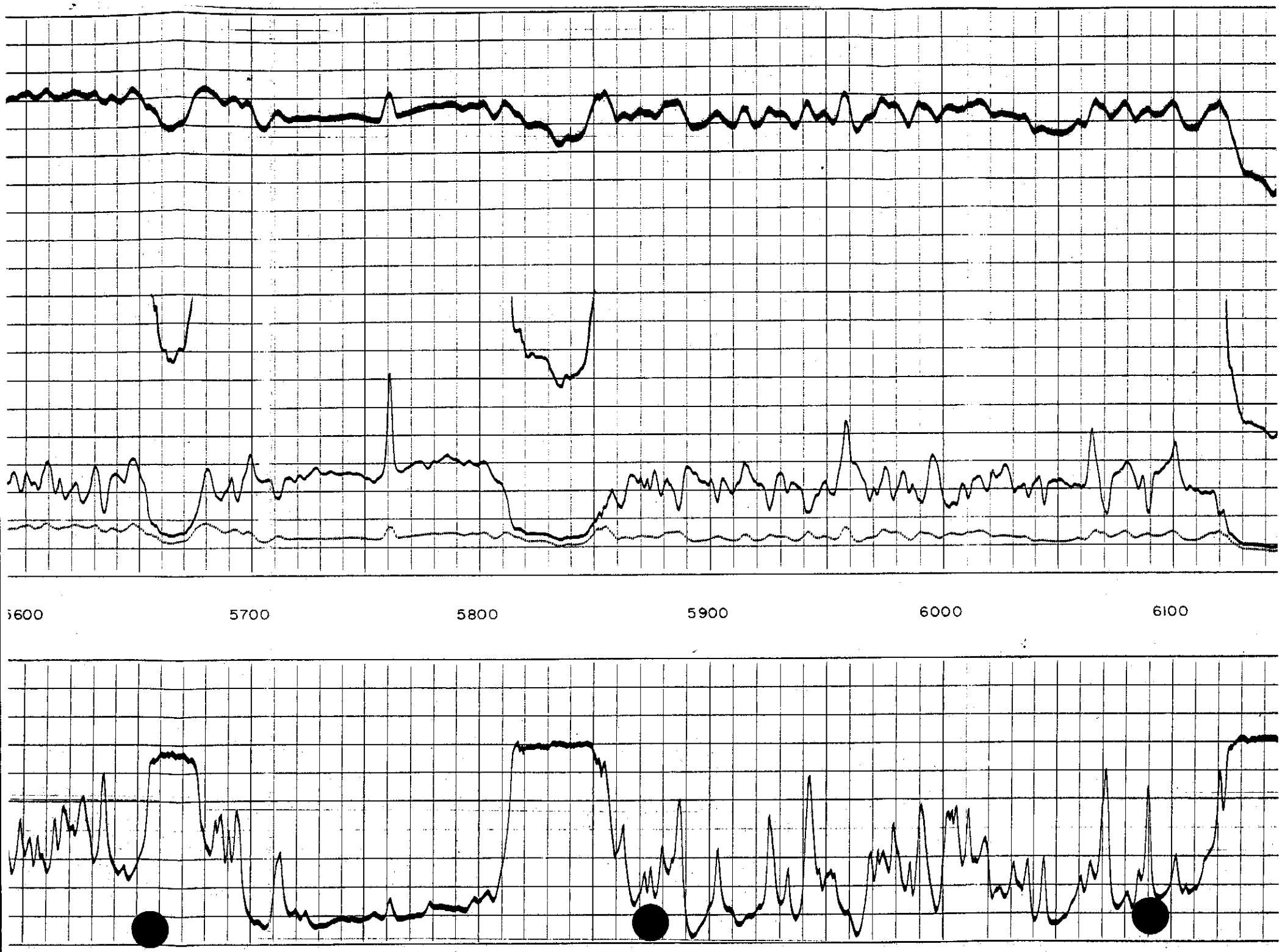
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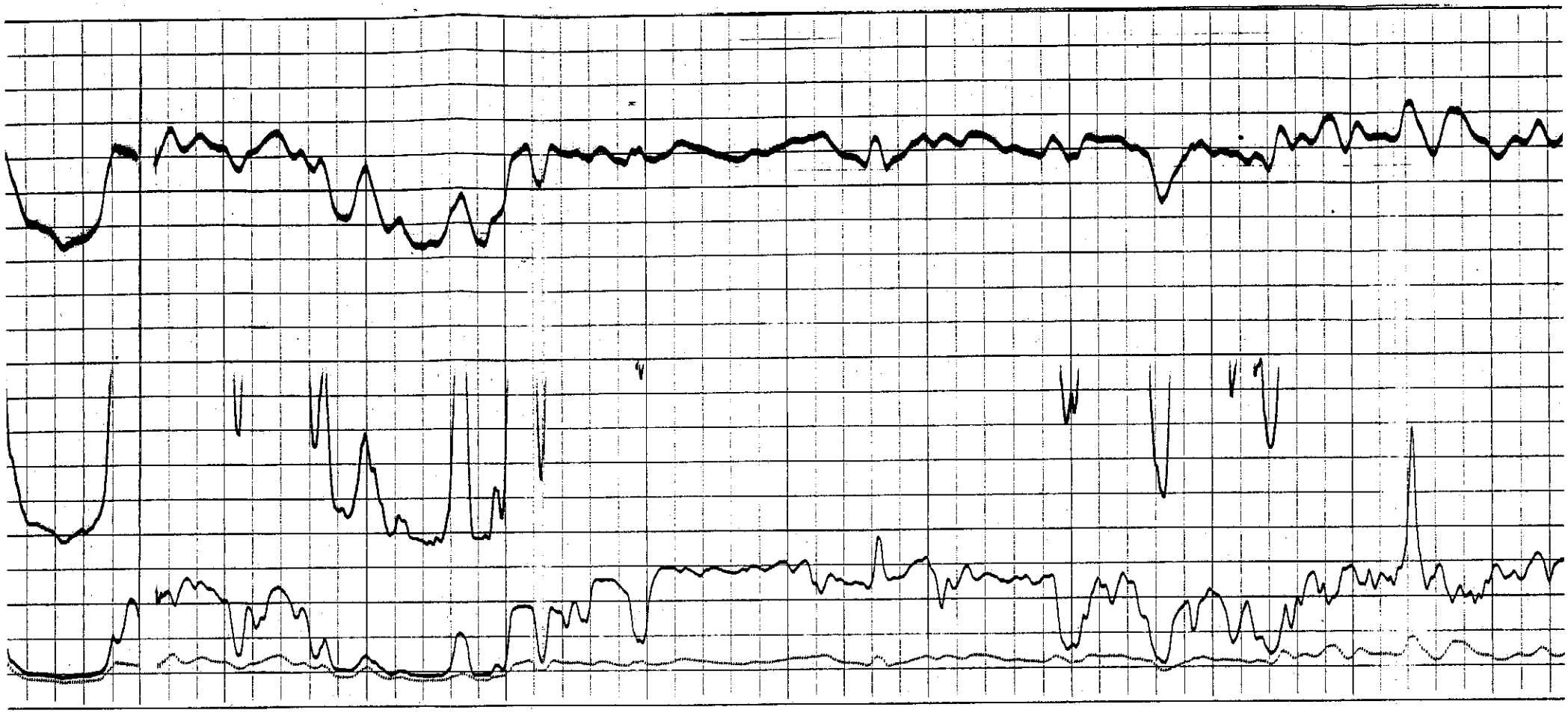

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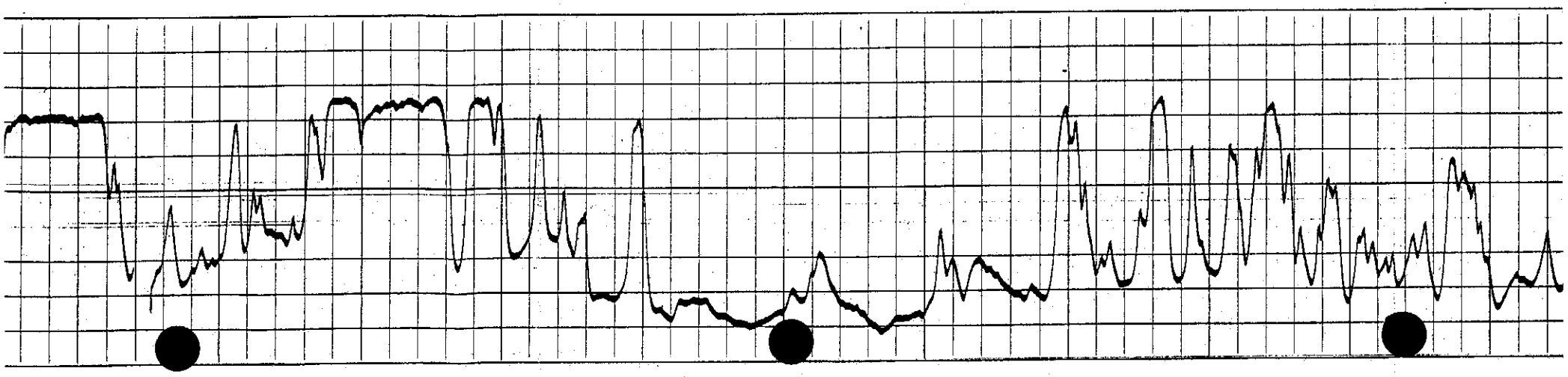

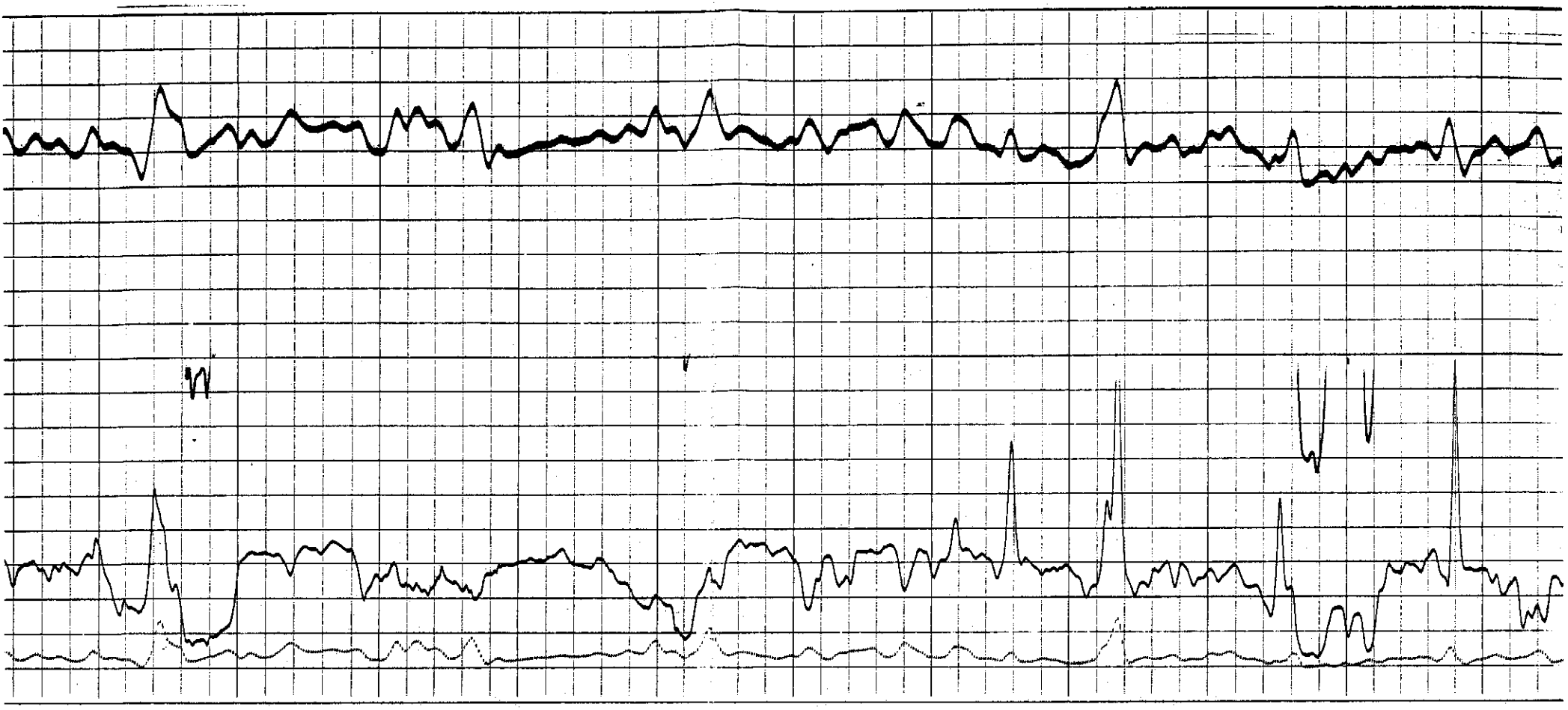

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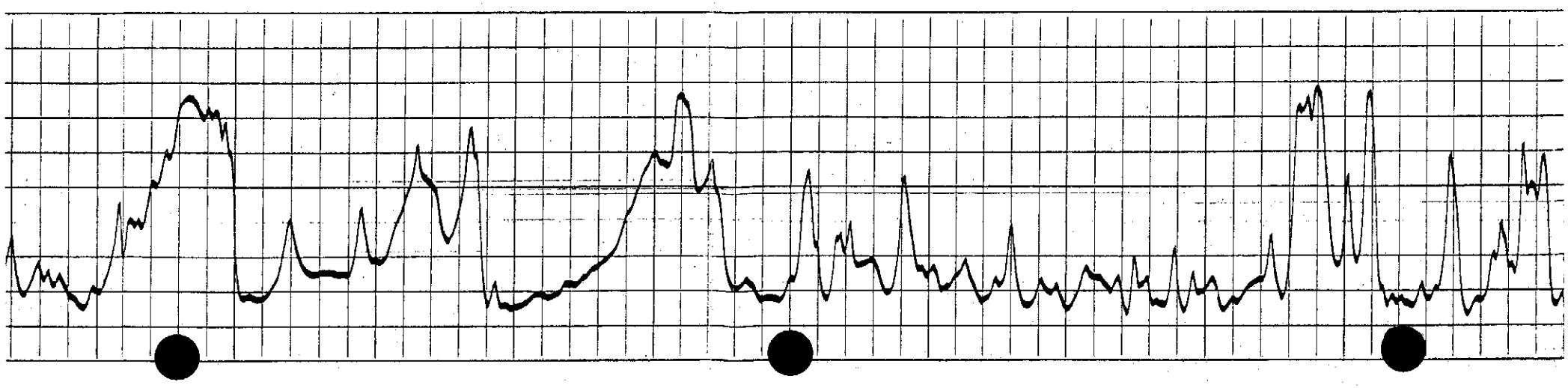

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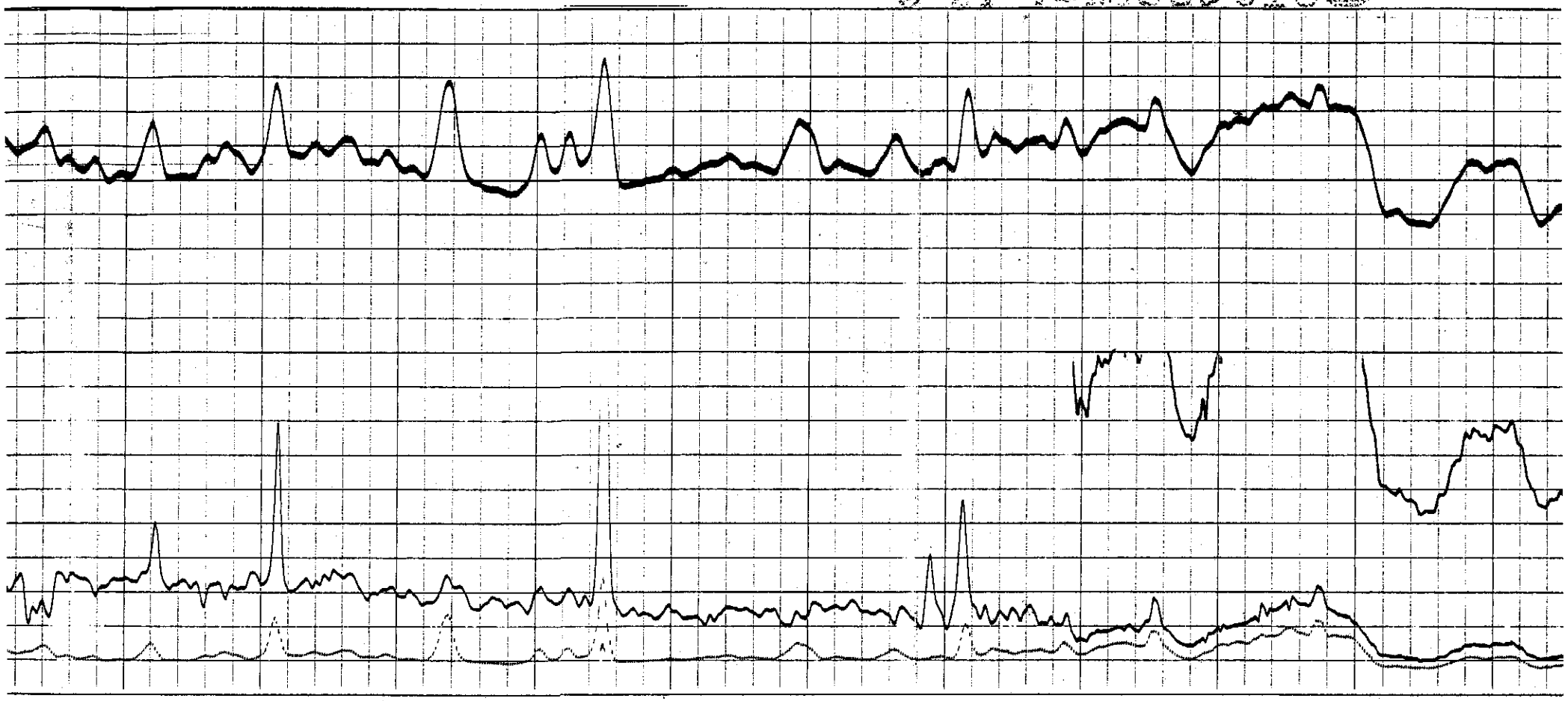

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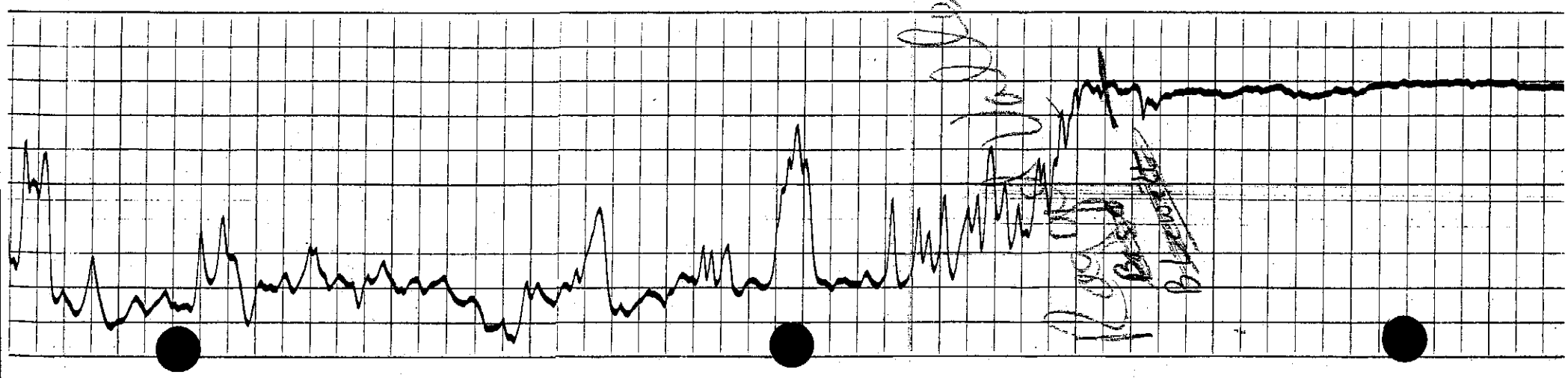

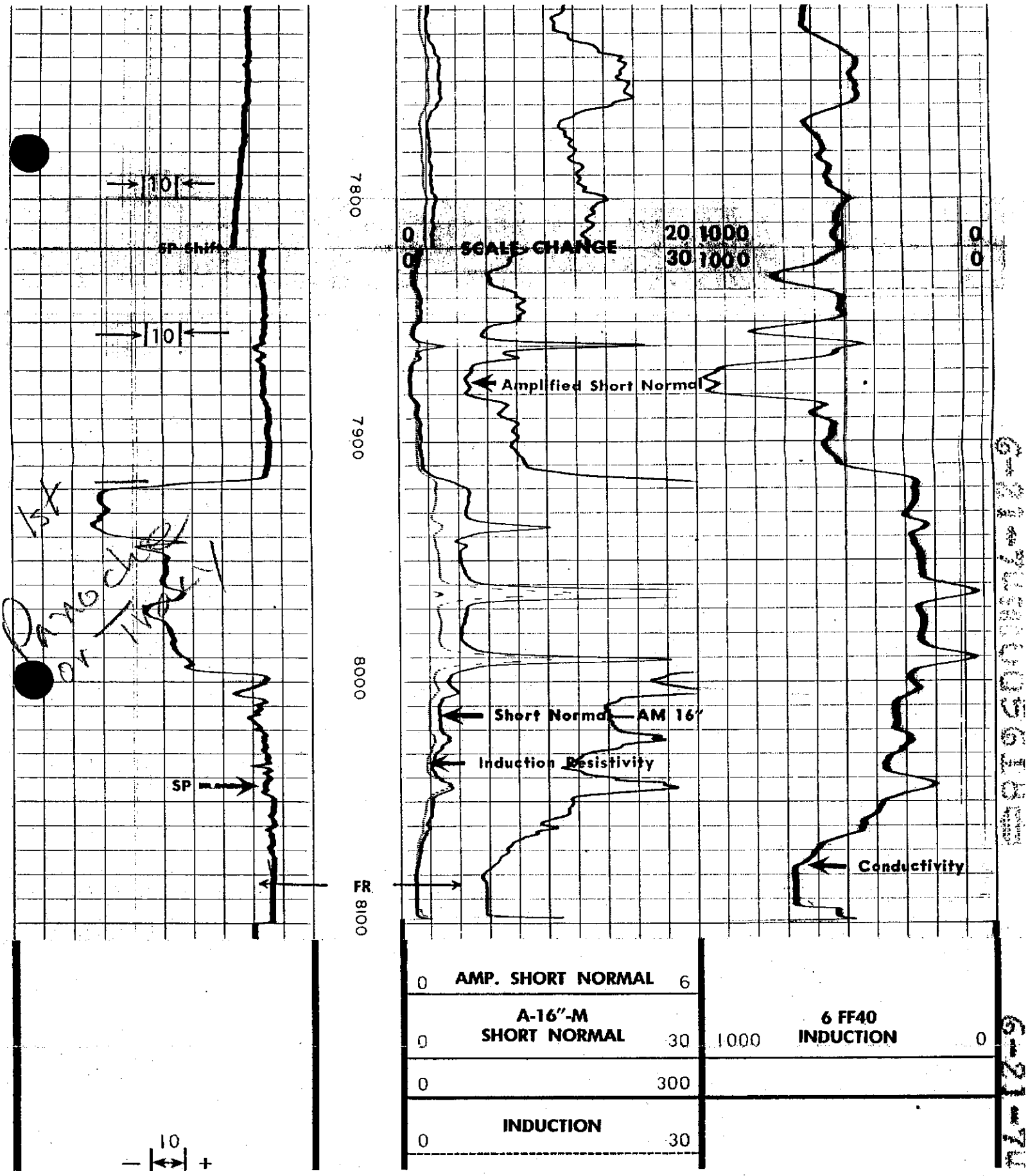
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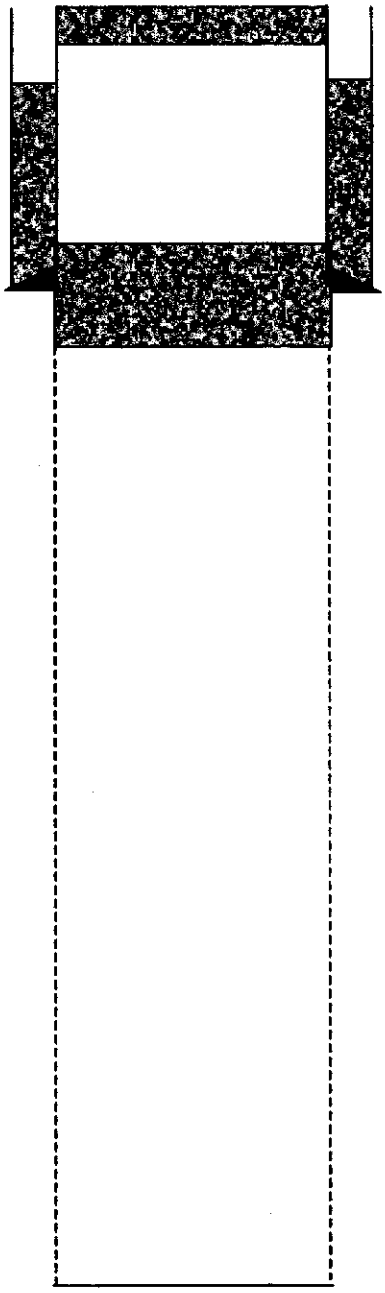
Schusterman Operating Co. "Inexco-Nyman Unit" 1

Hilmar Area: Inexco-Nyman Unit #1 #1
1570' N + 1070' E f/SW corner, sec. 2, T6S/R10E, MDB&M

KB = 109' (GL + 14')



Well drilled & logged, then plugged and abandoned in 2-72.

8 5/8" 23# csg cem @ 930' w/300 sx;
TTOC @ 94' in 12 1/4" annulus.

Cement plugs @ 0-32'; 656-927'. Remaining hole filled with drilling mud.

7 7/8" hole drilled to 9,300'

TD = 9,300'

FORM 100

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

WELL SUMMARY REPORT

SUBMIT IN DUPLICATE

Operator Schusterman Operating Company Well No. Inexco-Nyman Unit #1

Sec. 2, T. 6S, R. 10E, M.D. B. & M. ~~Merced~~ Field Merced County.

Location 1570 N & 1070 E F.R.S.W. Cor. Sec. 2 MDB&M
(Give location from property or section corner, or street center lines)

Elevation of ground above sea level 95' feet.

All depth measurements taken from top of Kelly Bushings which is 14' feet above ground.
(Derrick Floor, Rotary Table or Kelly Bushing)

In compliance with Sec. 3215, of the Public Resources Code, the information given herewith is a complete and correct record of the present condition of the well and all work done thereon, so far as can be determined from all available records.

Date 12-30-71 Signed J. H. Connelly

(Engineer or Geologist) J. H. Connelly (Superintendent) Title Agent (President, Secretary or Agent)

Commenced drilling Dec. 9, 1971

Completed drilling Dec. 21, 1971

Total depth 9300' Plugged depth 6'

Junk

GEOLOGICAL MARKERS	DEPTH
Domengine	3135'
Hall Shale	3820'
Garzas	3890'
Tracy Sd. equiv.	7644'
Lathrop Sd. equiv.	8990'

Geologic age at total depth: Cret. "E"

DIVISION OF OIL AND GAS RECEIVED JAN 13 1972 COALINGA, CALIFORNIA

Commenced producing (Date) Flowing/gas lift/pumping (Cross out unnecessary words) Name of producing zone

	Clean Oil bbl. per day	Gravity Clean Oil	Per Cent Water including emulsion	Gas Mcf. per day	Tubing Pressure	Casing Pressure
Initial production	Well Abandoned Dec. 21, 1971					
Production after 30 days						

CASING RECORD (Present Hole)

Size of Casing (A. P. I.)	Depth of Shoe	Top of Casing	Weight of Casing	New or Second Hand	Seamless or Lapweld	Grade of Casing	Size of Hole Drilled	Number of Sacks of Cement	Depth of Cementi if through perforat
8 5/8"	930'	Surface	23#	New	Smls	Foster	12¼"	300 sks.	

PERFORATED CASING
(Size, top, bottom, perforated intervals, size and spacing of perforation and method.)

(17)

Was the well directionally drilled? Electrical Log Depths 9298'-927' (Attach Copy of Log)

Δ OSP

12-6-71	Survey Location	1570N & 1070'E, F.R.S.W. Cor. Sec. 2 M.D.B.&M. Ground elevation 95' K.B. 14' Above ground
12-7-71	Prep. Location. Cemented in 16" Conductor pipe	
12-8-71	Prep. Location	
12-9-71	Moved in and rigged up Hunnicutt & Camp Drilling Co. Spud in at 10:00 A.M. Drilled 12¼" hole with bit #1 Globe 12¼" SS3 from surface to 937'. Mud 72# wt. 50 Vis. Ran and cemented 930' of 23# 8 5/8" Foster casing. Hung casing at 927' and cemented with 300 sacks of class G cement mixed with 4% gel and 3% chloride followed with 100 sacks class G W/3% chloride. Cement in place at 11:54 P.M.	
12-10-71	Installed B.O.P. equipment tested B.O.P. to 1500# O.K. Picked up and ran bit #2 Globe SSJ# 7 7/8" and drill collars. Drilled out shoe. Drilled sand and clay. T.D. 2384'	
12-11-71	Drilled sand and clay. Mud 78#, Vis. 43# W.L. 11, F.C. 2/32, Survey at 2384' off 2 degree, Survey at 3853' off 4 degree. Pulled bit #2 made 1457' in 15 hrs. Ran bit #3 Globe SS3 7 7/8" made 1469' in 8 3/4 hrs. Ran bit #4 Globe SS3 7 7/8" Drilling sand clay and shale. T.D. 4684'	
12-12-71	Drilled sand clay and shale. Mud 78#, Vis. 45# W.L. 10, F.C. 2/32. Survey at 4799' 3 degree 30", Survey at 5563' 2 degree. Pulled bit #4 made 946' in 10 hrs. Ran bit #5 Globe SS3 7 7/8" made 764' in 8 3/4 hrs. Ran bit #6. T.D. 5828'	
12-13-71	Drilled sand clay and shale. Mud 77#, Vis. 43#, W.L. 7.5, F.C. 2/32, Pulled bit #6 made 683' in 9¼ hrs. Ran bit #7 Globe SS3J 7 7/8". T.D. 6786'	
12-14-71	Drilled sand clay and shale. Mud 79#, Vis. 44# W.L. 6.3, F.C. 2/32. Survey at 6246' 1 degree, Survey at 6786' 1 degree. Pulled bit #7 made 540' in 9½ hrs. Ran bit #8 Globe SS3J 7 7/8" T.D. 7386'	
12-15-71	Drilled sand clay and shale. Mud 78#, Vis. 45, W.L. 5.7, F.C. 2/32, Pulled bit #9 made 293' in 12 3/4 hrs. Ran bit #10 Globe SS3J 7 7/8". T.D. 7695'	
12-16-71	Drilled sand clay and shale. Mud 78#, Vis. 48#, W.L. 5.5, F.C. 2/32, Survey at 7857' 1 degree 15". Pulled bit #10 made 312' in 13 hrs. ran bit #11 Globe SS3J T.D. 8062'	
12-17-71	Drilled sand clay and shale, Mud 78# Vis. 47#, W.L. 5.3, F.C. 2/32, Pulled bit #11 made 257' in 10 hrs. Ran bit #12 Globe SS3J 7 7/8" T.D. 8400'	
12-18-71	Drilled sand clay and shale, Mud 78# Vis. 50#, W.L. 5.3, F.C. 2/32, Survey at 8530' off 15", Pulled bit #12 made 416' in 20 hrs. Ran bit #13 Globe SS3J 7 7/8" T.D. 890	

12-19-71 Drilled sand clay and shale. Mud 78#, Vis. 46# W.L. 5.2, F.C. 2/32, Pulled bit #13 made 458' in 16 hrs. Ran bit #14 Globe SS3J 7 7/8" T.D. 9189'

12-20-71 Drilled sand clay and shale. Mud 81#, Vis. 45#, W.L. 5.2, F.C. 2/32 pulled bit #14 made 201' in 11 hrs. Ran bit #15 Globe SS3J 7 7/8" made 111' in 6 3/4 hrs. Total depth drilled 9300'. Conditional mud for loggers. Pulled bit #15. Rigged up Welex, logging.

12-21-71 Ran Welex Induction electric log. Logged from 9298' to 927'. Logging time 7½ hrs. Wait for orders 2¼ hrs. Ran 4" F.H. Drill Pipe and hung at 977' Equalized 100 sacks of class G cement with 3% calcium chloride from 977 to 656'. Pulled drill pipe. Cem in place at 10:30 P.M. Let cement set 4½ hrs. Ran drill pipe and located top of plu at 737' by putting 10,000# of weight on top of plug at 3:00 A.M. plug #1 737' to 10 Layed down drill pipe. Tearing out rig. Well abanded 3:00 A.M. 12-21-71

1-26-72 L. M. Ipsen & Sons equipment. Pumped out sump and Disposed of waste.

2-10-72 L.M. Ipsen & Sons equipment. Cleaned out cellar. Cut off conductor pipe 6' below surface. Mixed 10 sacks of class G cement. Set cement plug from 32' to surface of conductor pipe. Welded steel cap on top of conductor pipe. Backfill sump & graded location. Location cleaned as per agreement. 2-10-72

FORM 159

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF WELL ABANDONMENT

WILDCAT LIST 1971

Coalinga California

March 2, 1972

Mr. Mike (M. W.) Pepper, Agent
SCHUSTEEMAN OPERATING COMPANY
3352 El Camino Avenue, #328
Sacramento, CA 95821

DEAR SIR:

Your report of abandonment of Well No. "Inexco-Nyman Unit" 1 (047-20019), Sec. 2, T. 6 S., R. 10 E., M. D.B. & M., ------ field, Merced County, dated 12-30-71, received 1-3-72, has been examined in conjunction with records filed in this office.

A review of the reports and records shows that the requirements of this Division, which are based on all information filed with it, have been fulfilled.

Bond No. 4098143 dated 9-8-71 and
Endorsements dated 11-30-71 and 12-6-71
RAR:ef
cc: Company, Tulsa
Conservation Committee

JOHN F. MATTHEWS, JR.
State Oil and Gas Supervisor

By C. H. Corwin
Deputy Supervisor

31466-708 4-62 10M OSP

FIELD PRINT

Welex

INDUCTION • ELECTRIC LOG

COMPANY SCHUSTERMAN OPERATING COMPANY (047-20019)

WELL "INEXCO-NYMAN UNIT" NO. 1

FIELD ~~HILMAR~~

COUNTY MERCED STATE CALIFORNIA

Location 1570'N. & 1070'E. FR. S.W. COR. SEC. 2. M.D.B.&M.

Sec. 2 Twp 6S Rge 10E

Other Services:

RECEIVED JAN 3 1972 COALINGA, CALIFORNIA

COMPANY / WELL / FIELD / County / State CALIF.

Permanent Datum G.L. Elev. 95'

Log Measured From K.B. 14' Ft. Above Perm. Datum

Drilling Measured From K.B.

Elev.: K.B. 109' D.F. – G.L. 95'

Date	12-20-71			
Run No.	-1-			
Depth—Driller	9300'			
Depth—Welex	9298'			
Btm. Log Inter.	9289'			
Top Log Inter.	927'			
Casing—Driller	8 5/8" @ 927'	@	@	@
Casing—Welex	928'			
Bit Size	7 7/8"			
Type Fluid in Hole	LIGNOSULF CLAY MUD			
Dens. | Visc.	8.1 | 48	|	|	|
pH | Fluid Loss	10.5 | 5.2 ml	| ml	| ml	| ml
Source of Sample	CIRC.			
R_m @ Meas. Temp.	3.43 @ 61 °F	@ °F	@ °F	@ °F
R_{mf} @ Meas. Temp.	2.46 @ 50 °F	@ °F	@ °F	@ °F
R_{mc} @ Meas. Temp.	3.82 @ 50 °F	@ °F	@ °F	@ °F
Source R_{mf} R_{mc}	MEAS.	|	|	|
R_m @ BHT	1.30 @ 180°F	@ °F	@ °F	@ °F
Time Since Circ.	4 HRS.			
Max. Rec. Temp.	180°F @ BHT	°F @	°F @	°F @
Equip. | Location	8586 | WDLND	|	|	|
Recorded By	MR. SCHOFIELD			
Witnessed By	MR. PEPPERSE	CONNERS		

Fold Here

Service Ticket No. 56162 Remarks:

SCALE CHANGES

Change in Mud Type or Additional Samples	Type Log	Depth	Scale Up Hole	Scale Down Hole
Date | Sample No.	|			
Depth—Driller				
Type Fluid in Hole				
Dens. | Visc.	|			
ph | Fluid Loss	| ml			
Source of Sample				
R_m @ Meas. Temp.	@ °F			
R_{mf} @ Meas. Temp.	@ °F			
R_{mc} @ Meas. Temp.	@ °F			
Source: R_{mf} | R_{mc}	|			
R_m @ BHT	1.30 @ 180°F			
R_{mf} BHT	.77 @ 180°F			
R_{mc} BHT	1.20 @ 180°F			

EQUIPMENT DATA

Run No.	Tool Type and No.	Pad Type	Tool Position	Other
-1-	IEL-11456	B.S.	CENT.	B.

Welex does not guarantee the accuracy of any interpretation of log data, conversion of log data to physical rock parameters, or recommendations which may be made by Welex personnel or which may appear on the log or in any other form. Any user of such data, interpretations, conversions, or recommendations agrees that Welex is not responsible, except where due to gross negligence or wilful misconduct, for any loss, damages, or expenses resulting from the use thereof.

= 100'

POTENTIAL MILLIVOLTS — 10 — +

RESISTIVITY OHMS M²/M — 0 — 18" Normal — 20 1000

CONDUCTIVITY M MHOS/M — Induction — 0

POTENTIAL MILLIVOLTS

→ 10 ← +

Rmf .77 at 180 °F.

ONE MINUTE INTERVAL MARKER

RESISTIVITY OHMS M²/M

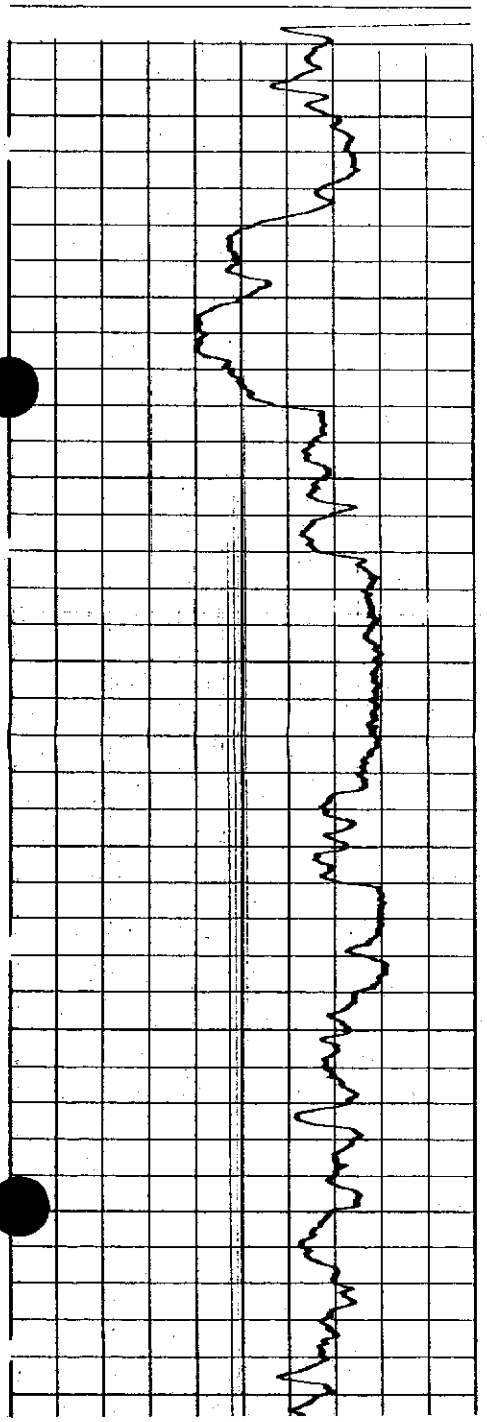
0	18" Normal	20
0	O.S.	200
0	18" AMPL NORMAL	4
0	Induction	20
0	O.S.	200

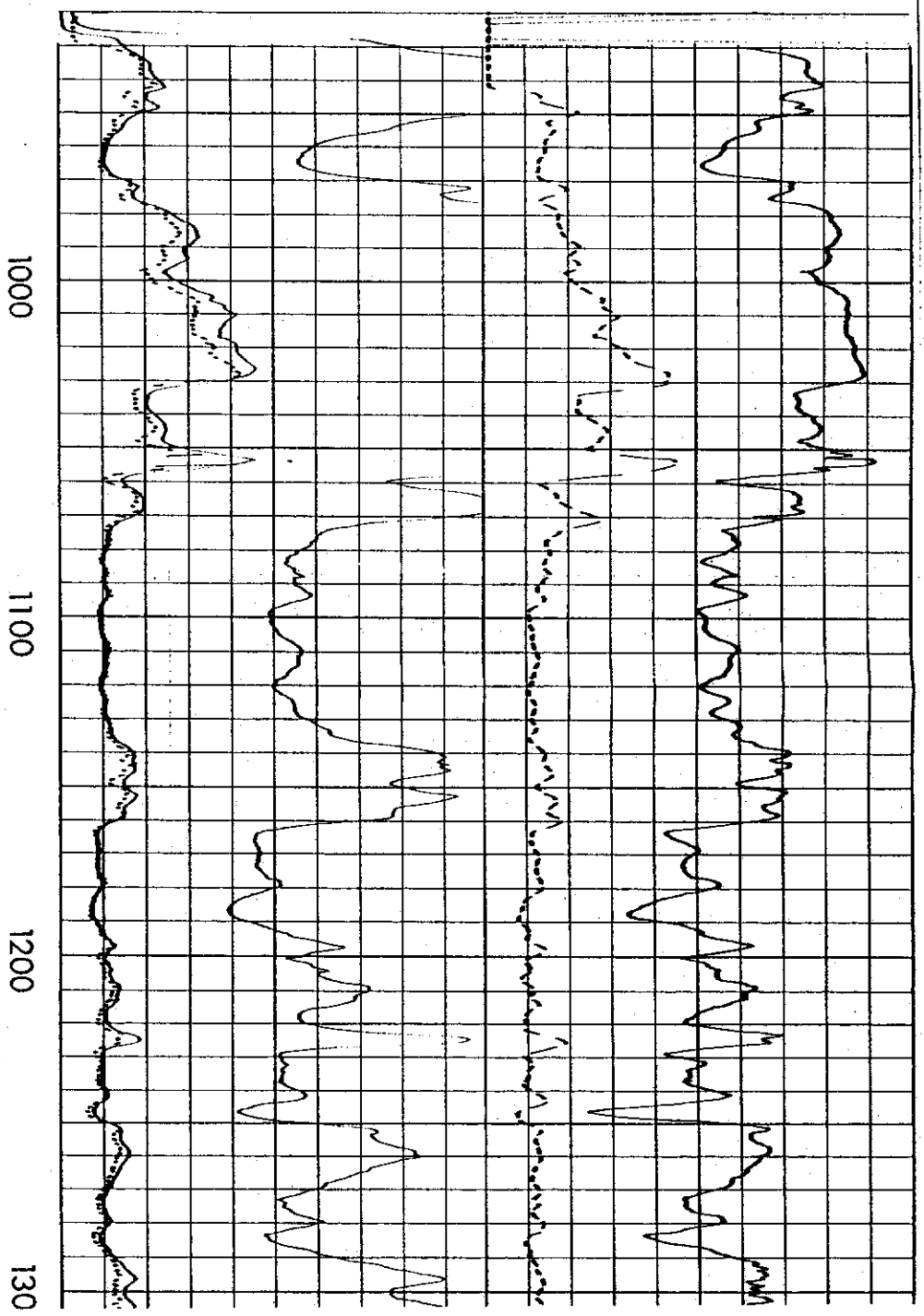
CONDUCTIVITY M MHOS/M

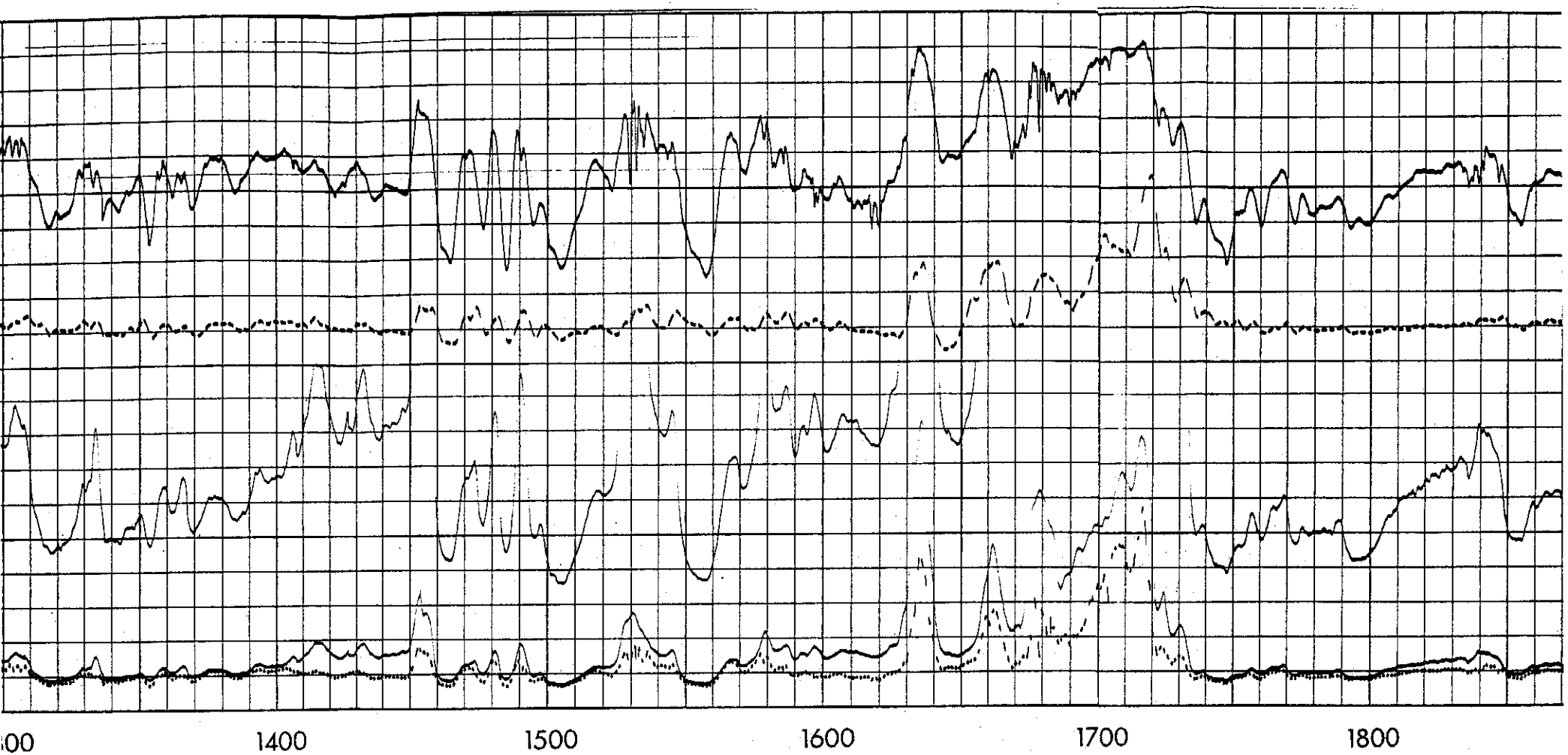
1000	Induction	0

RESISTIVITY OHMS M²/M

0	16' LATERAL	20
0	O.S.	200



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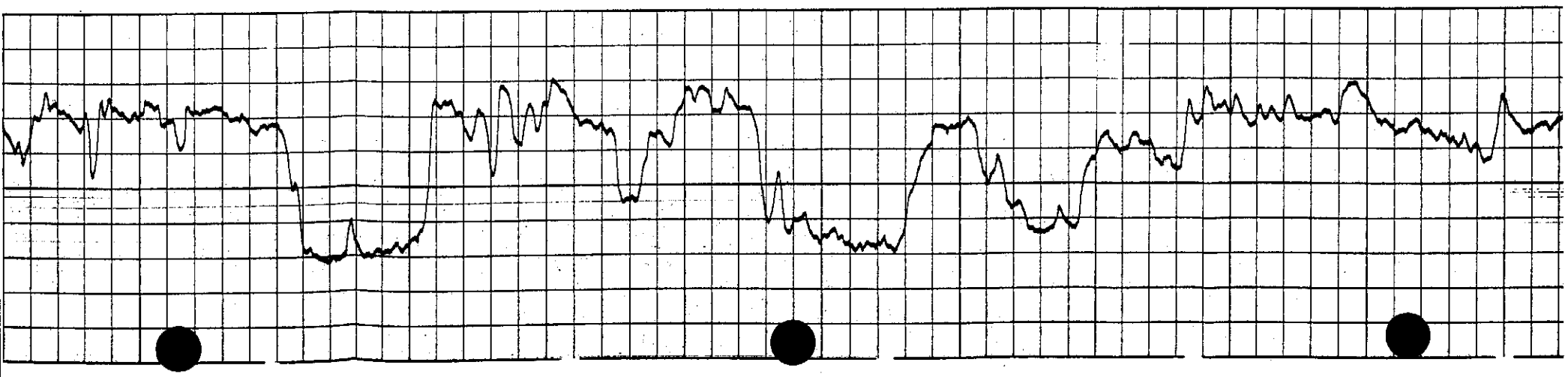

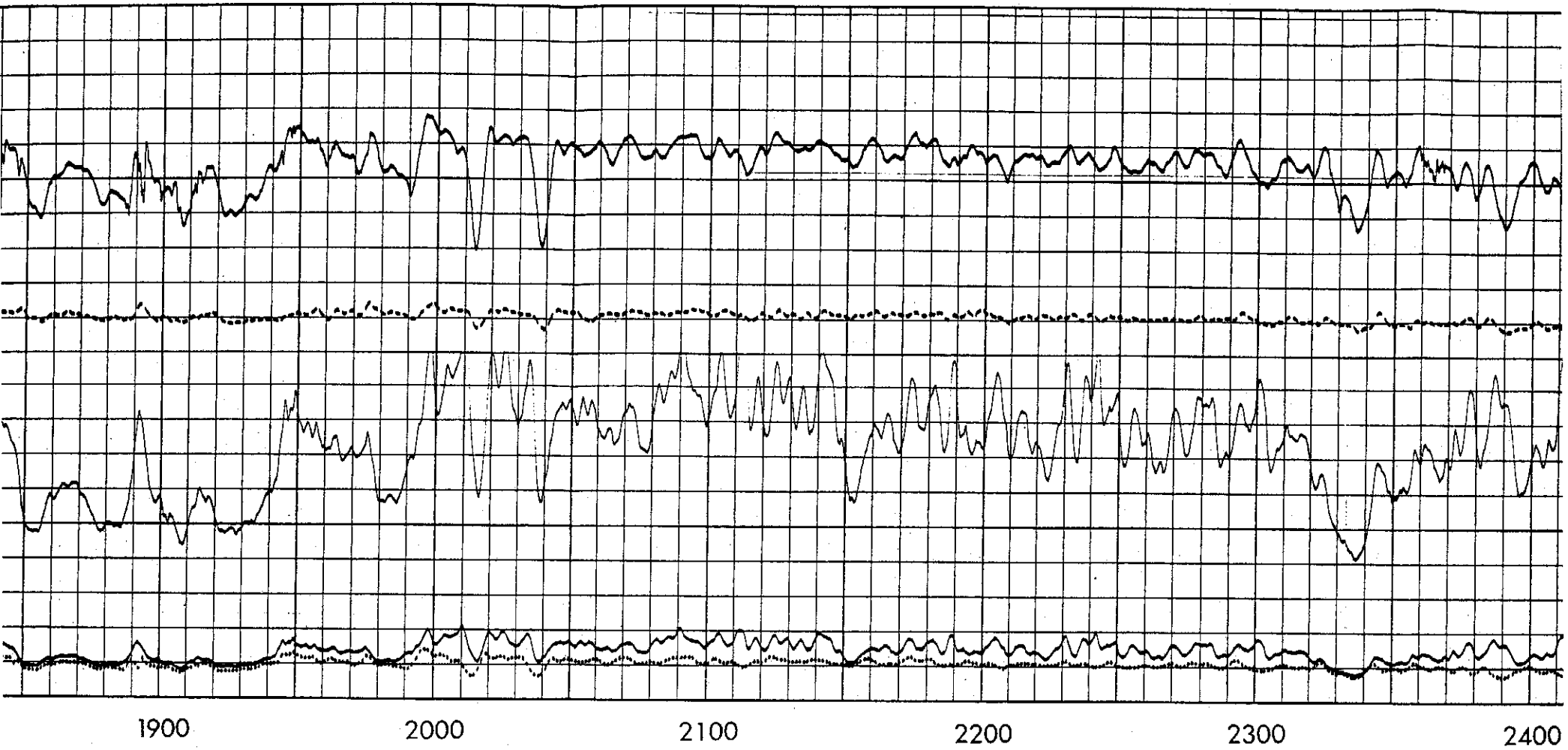
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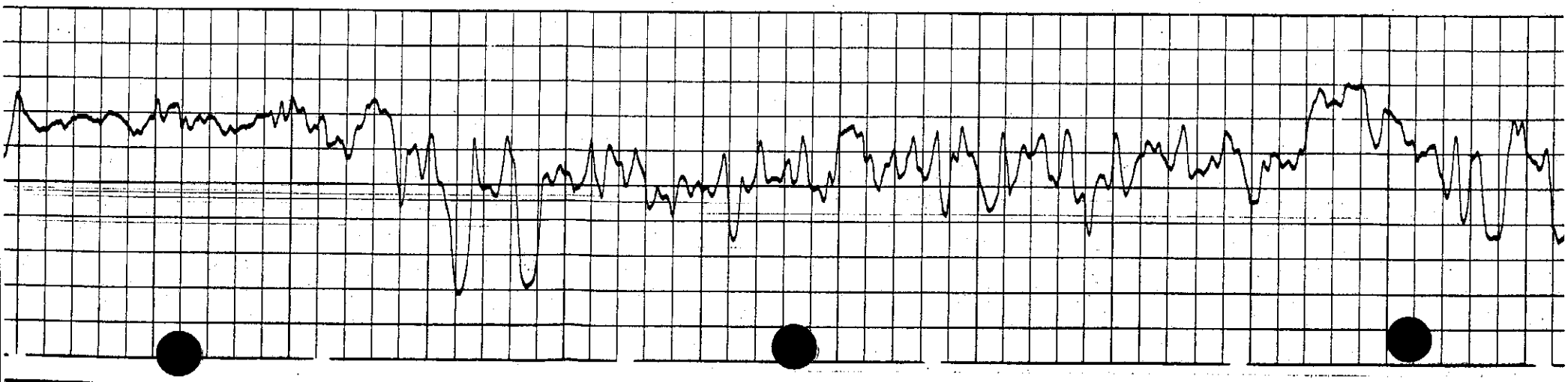

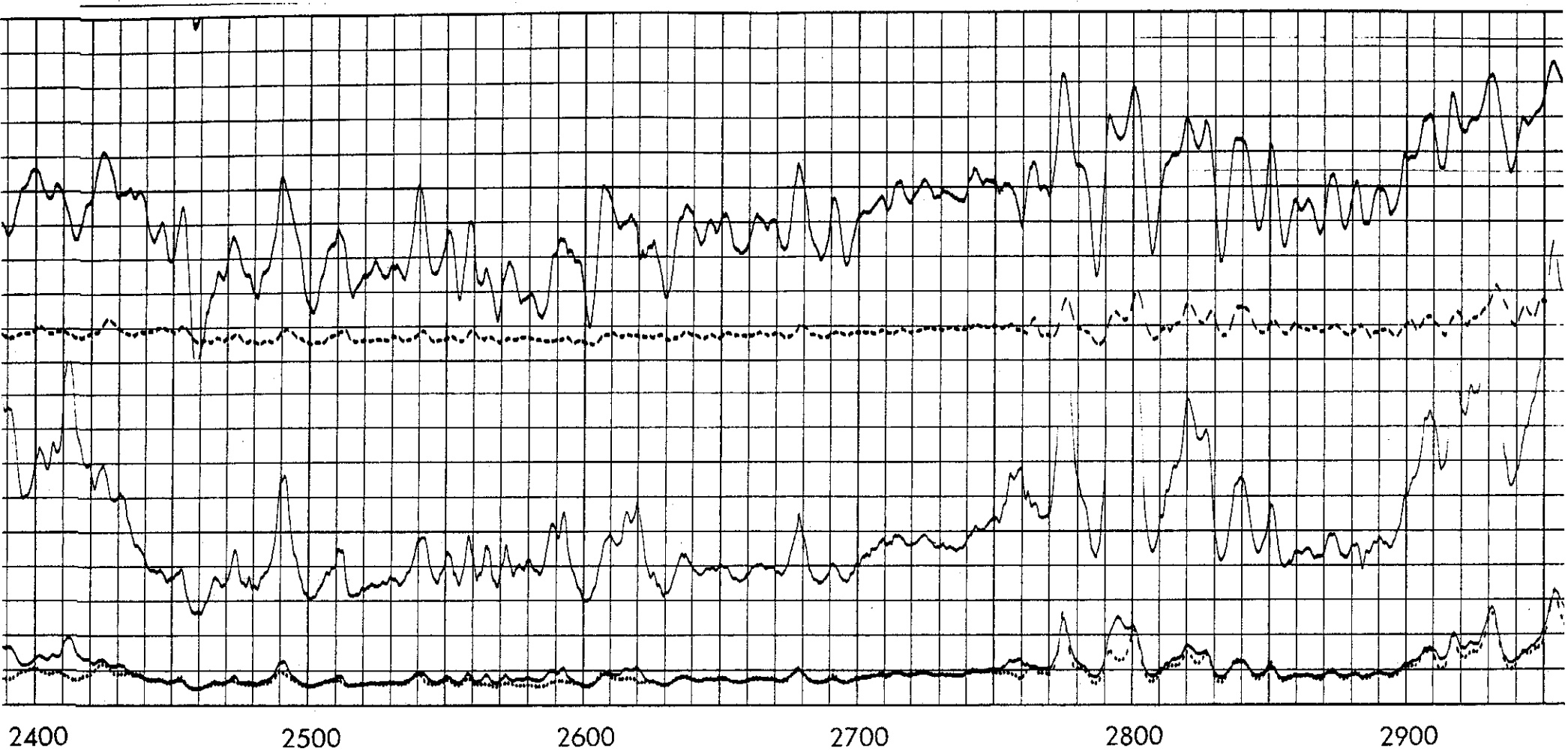
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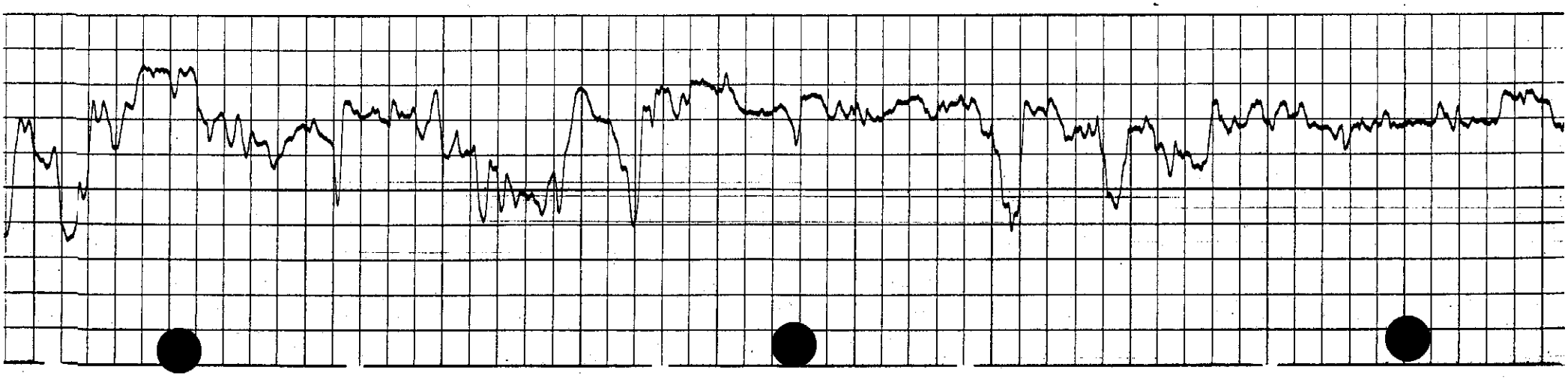

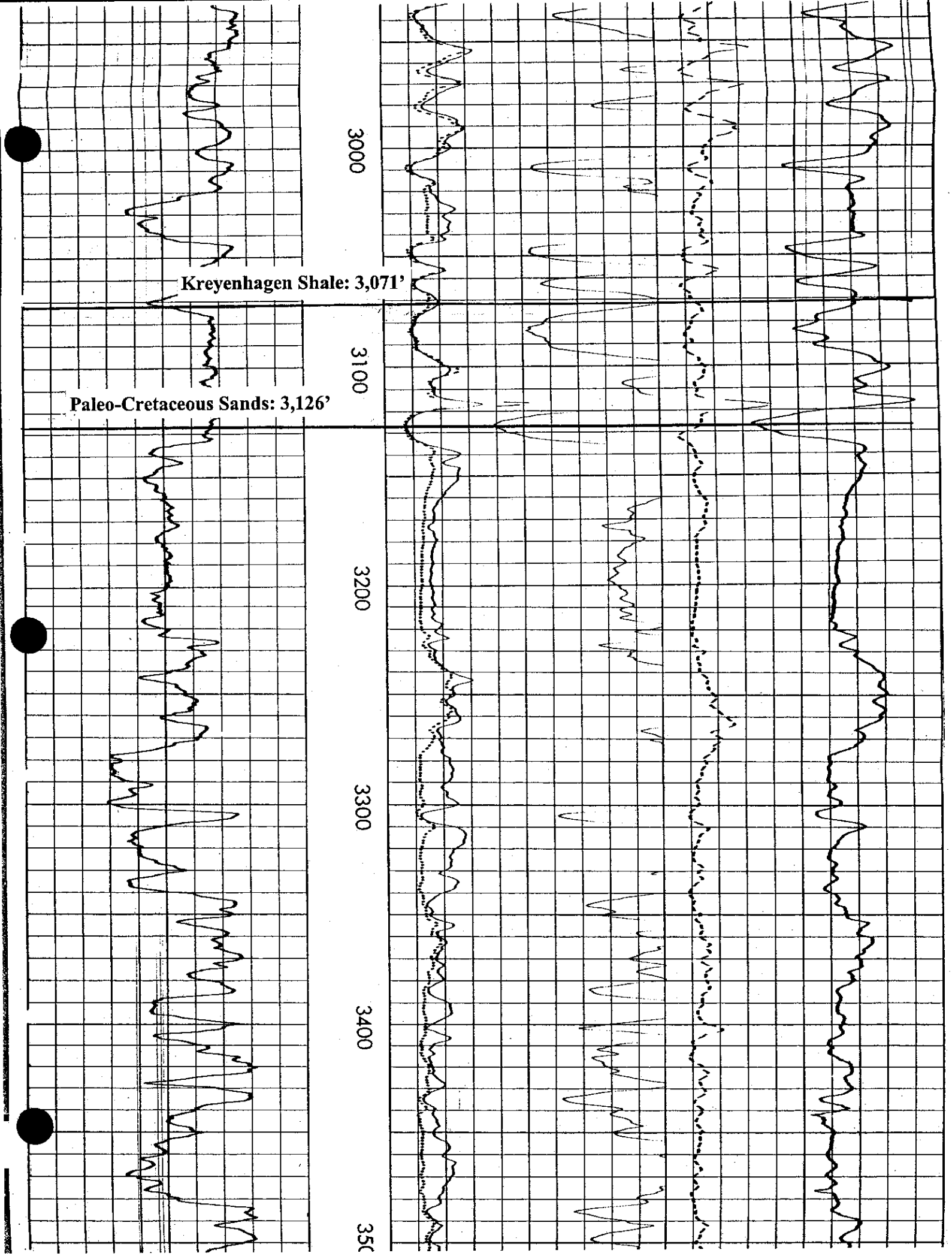
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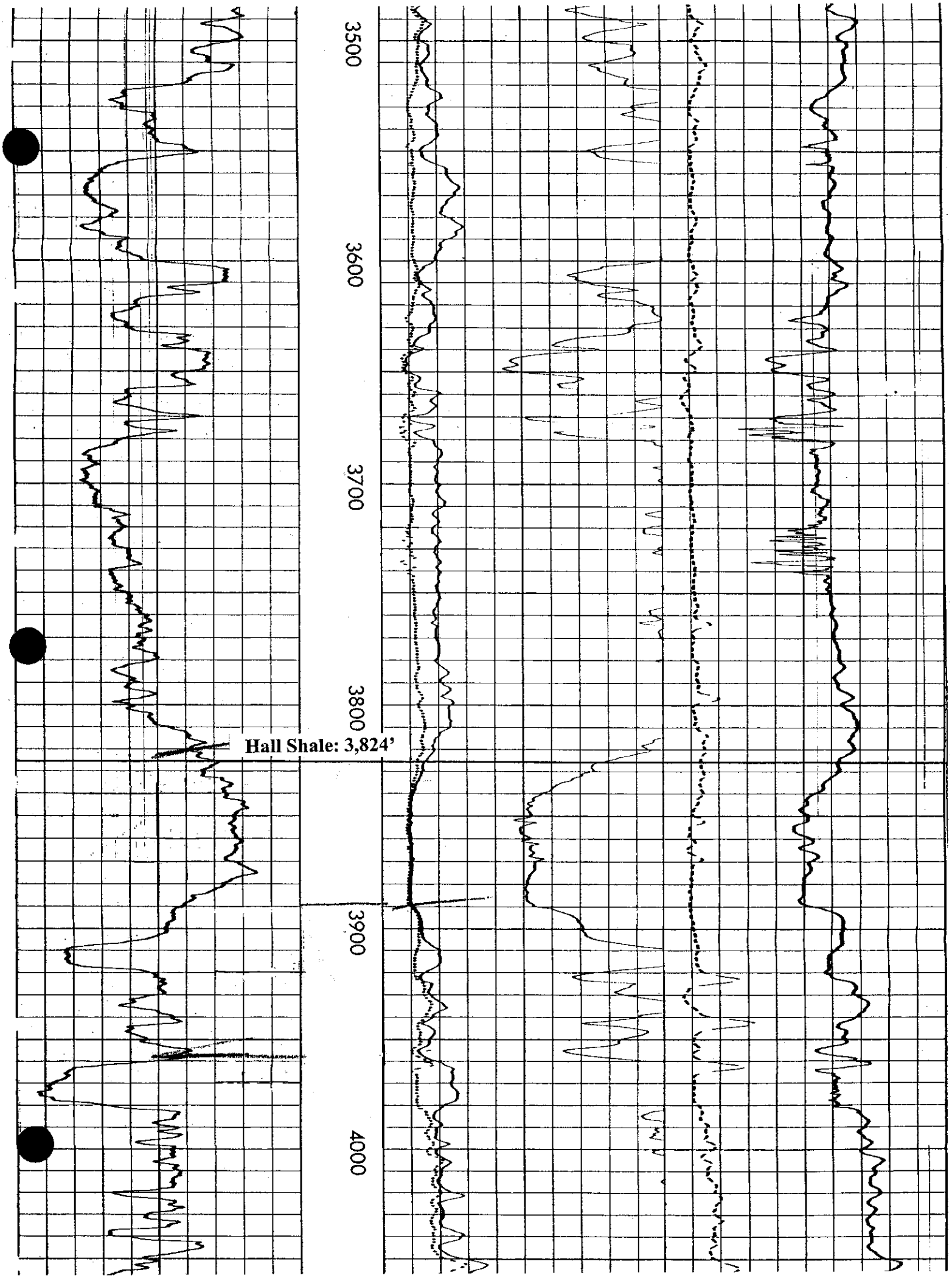
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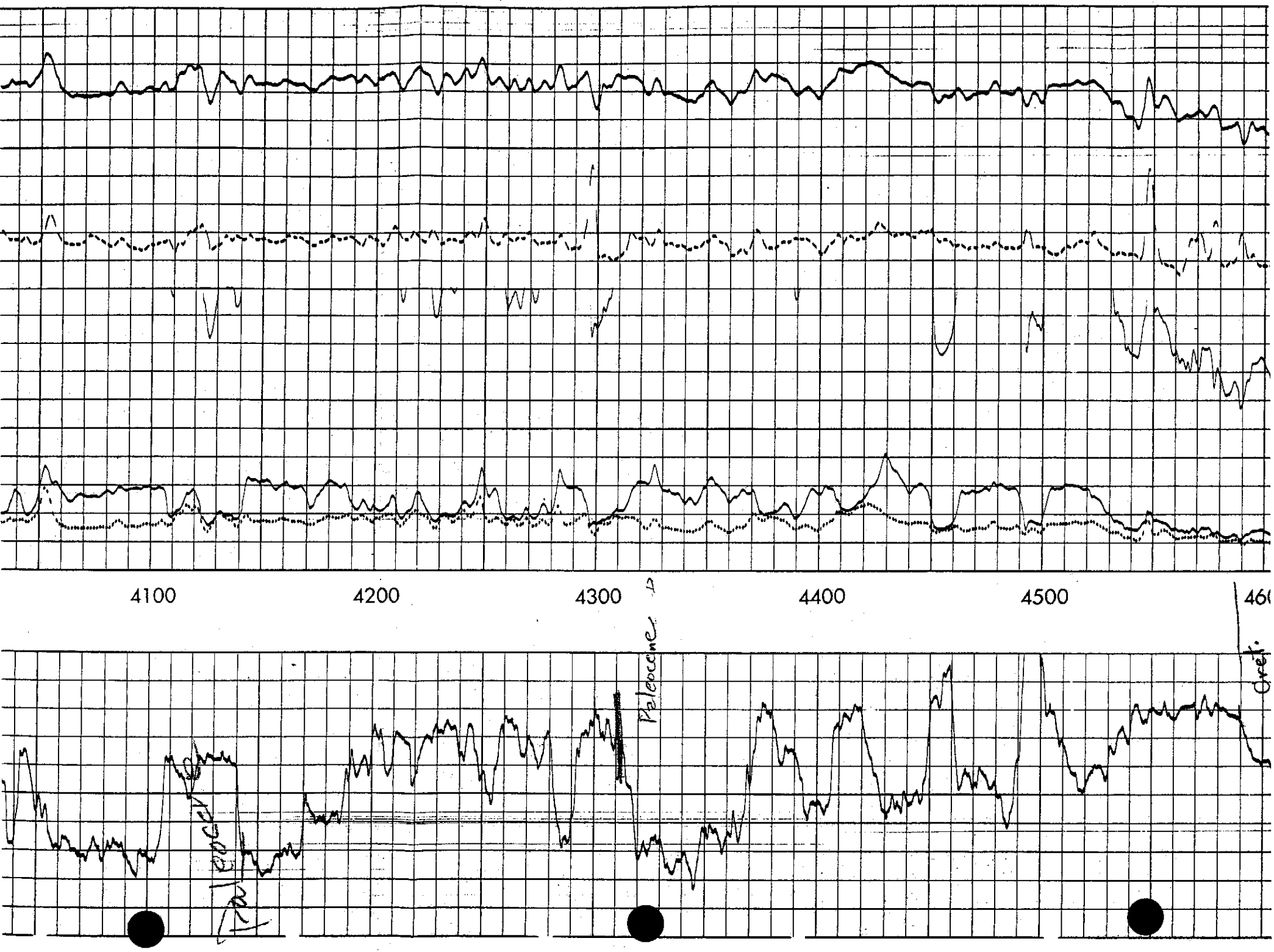
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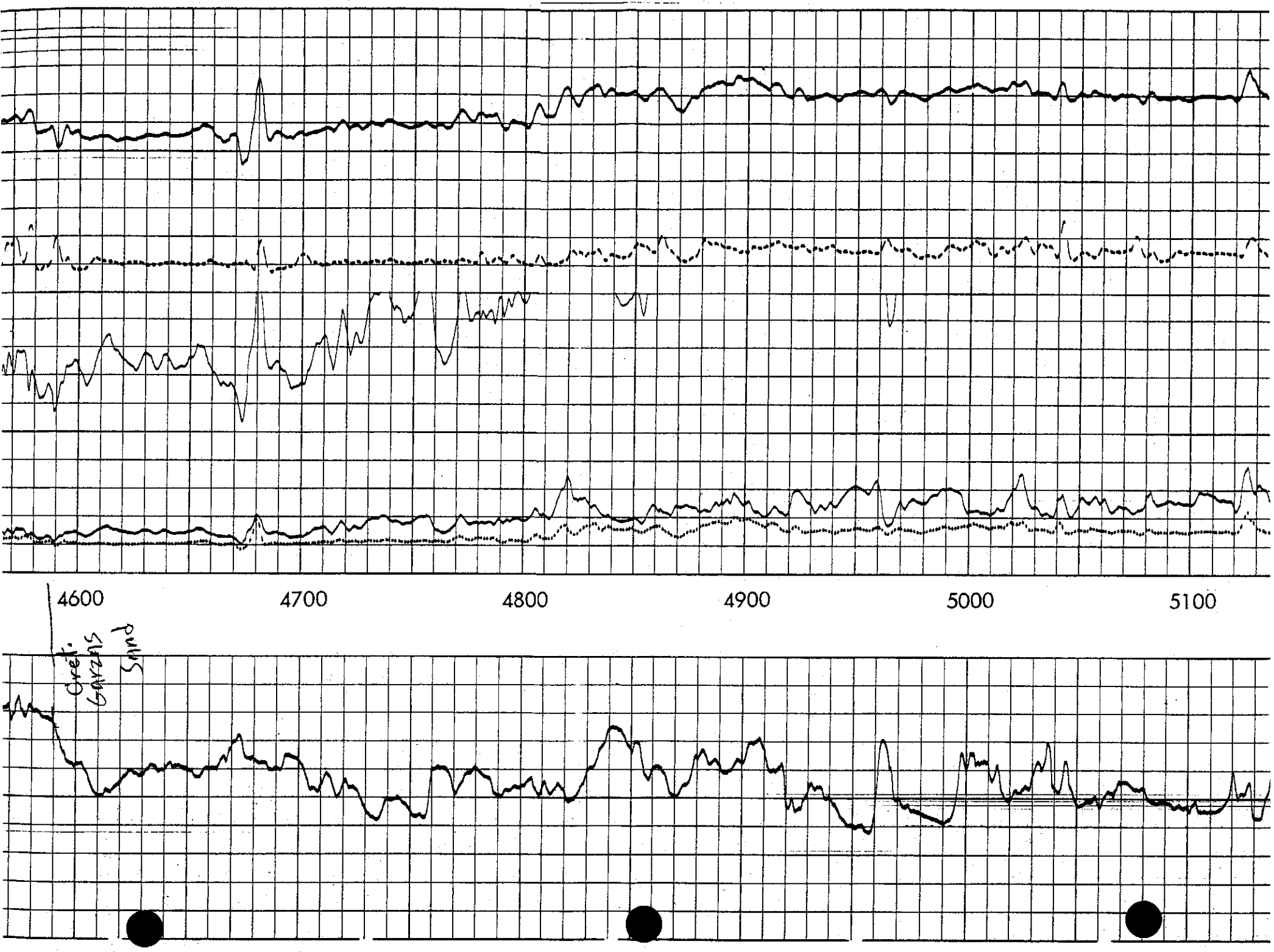
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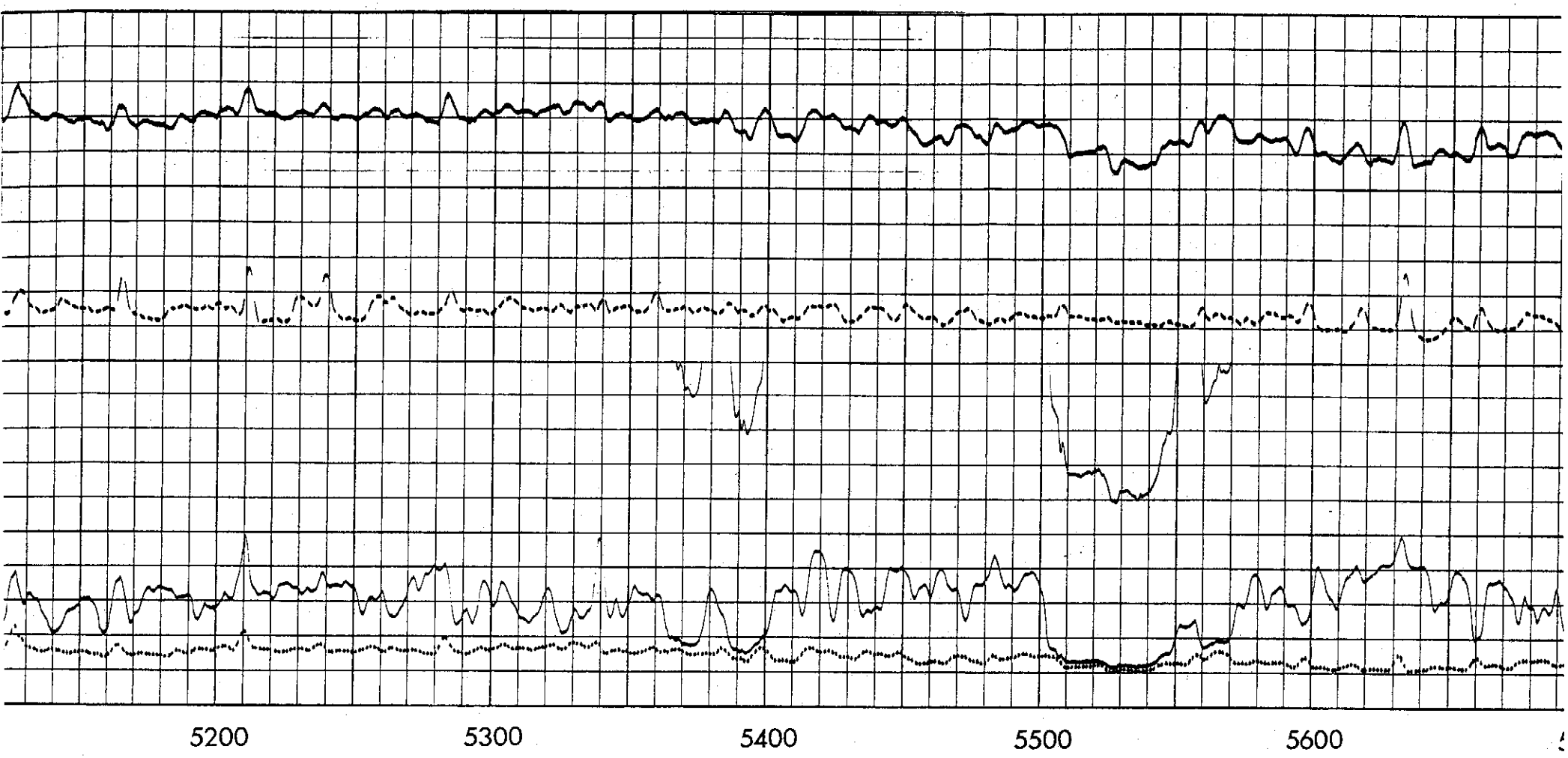
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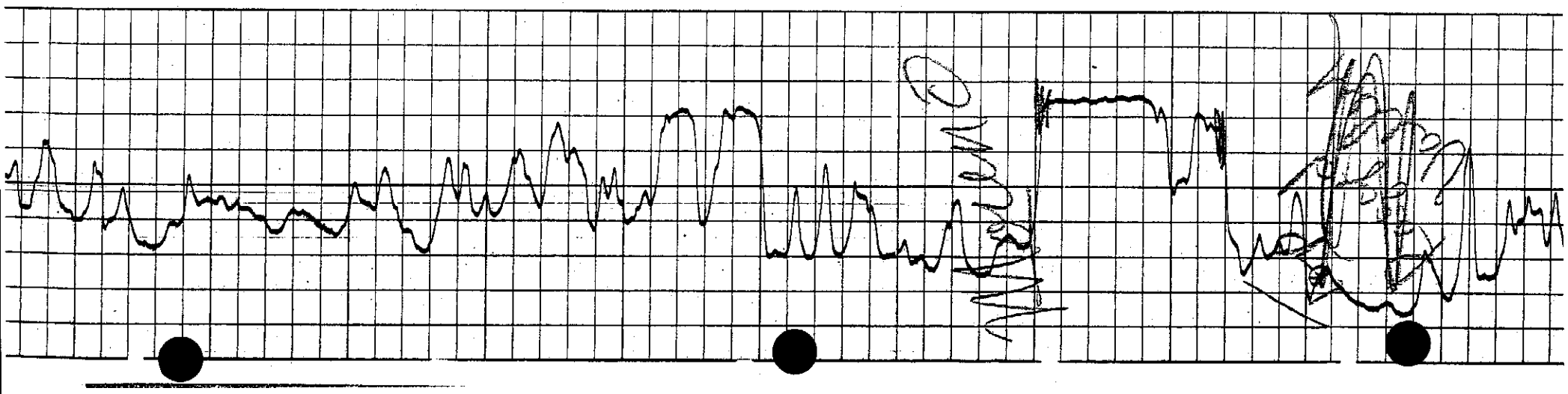

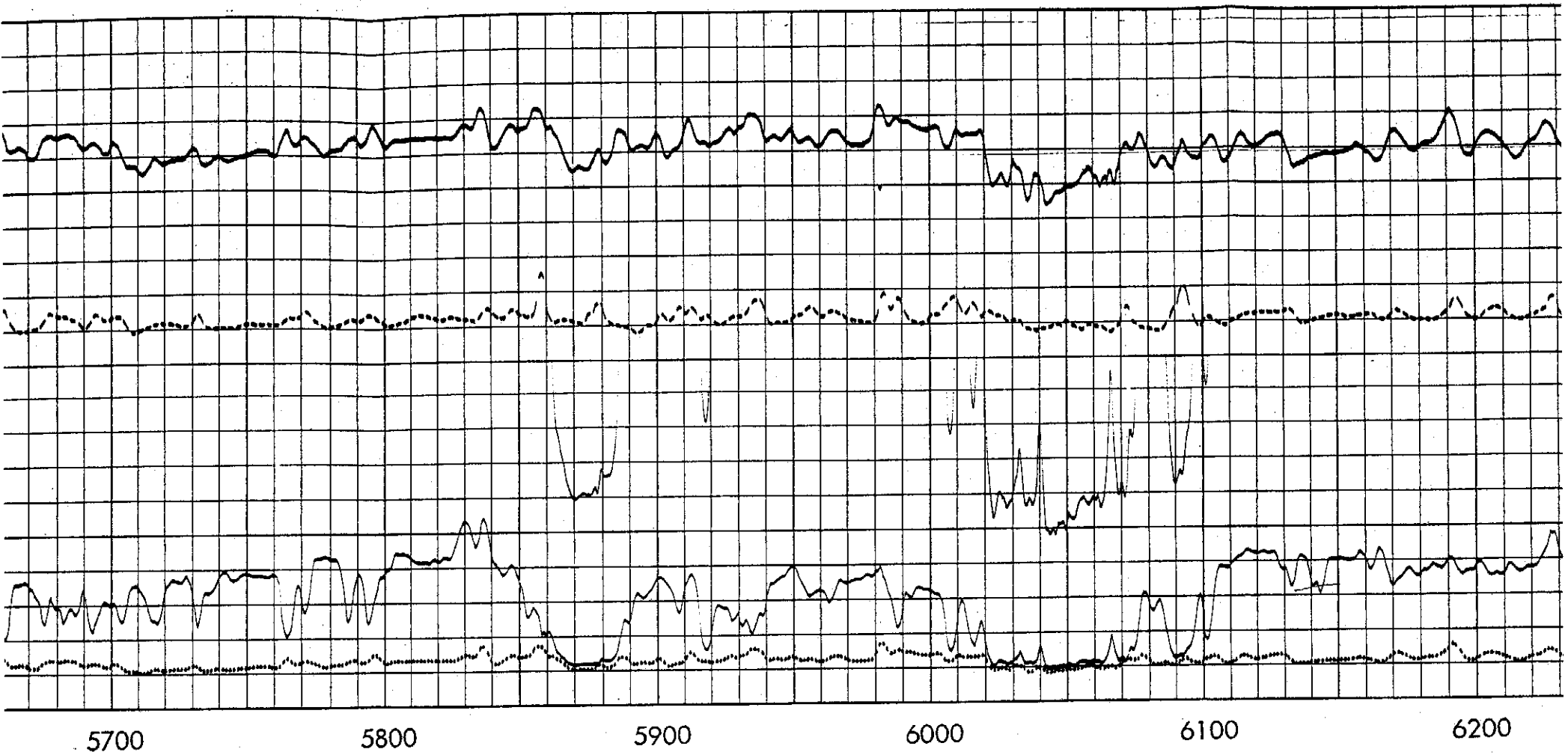
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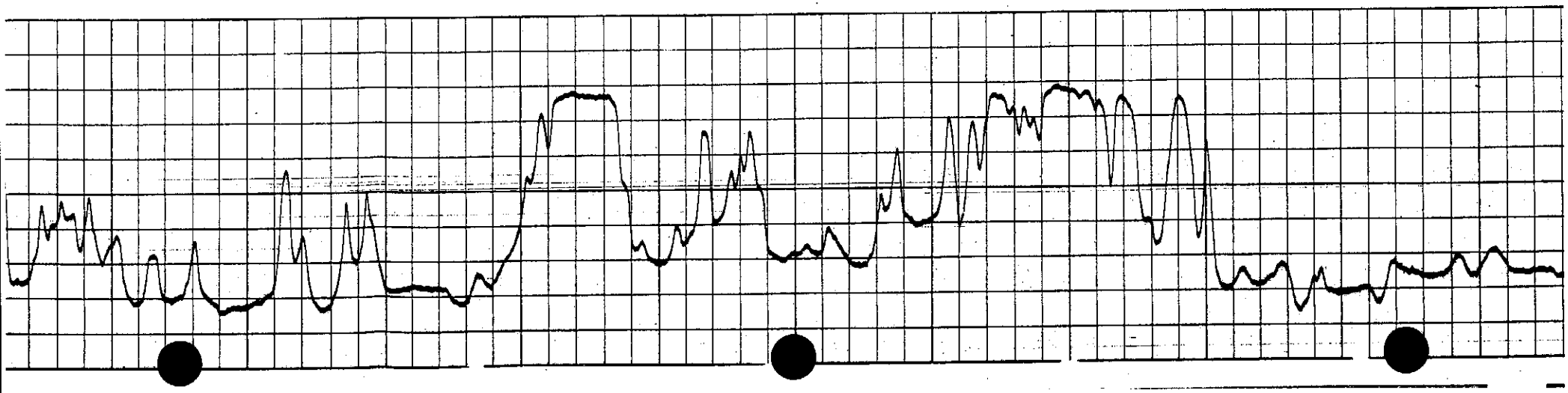

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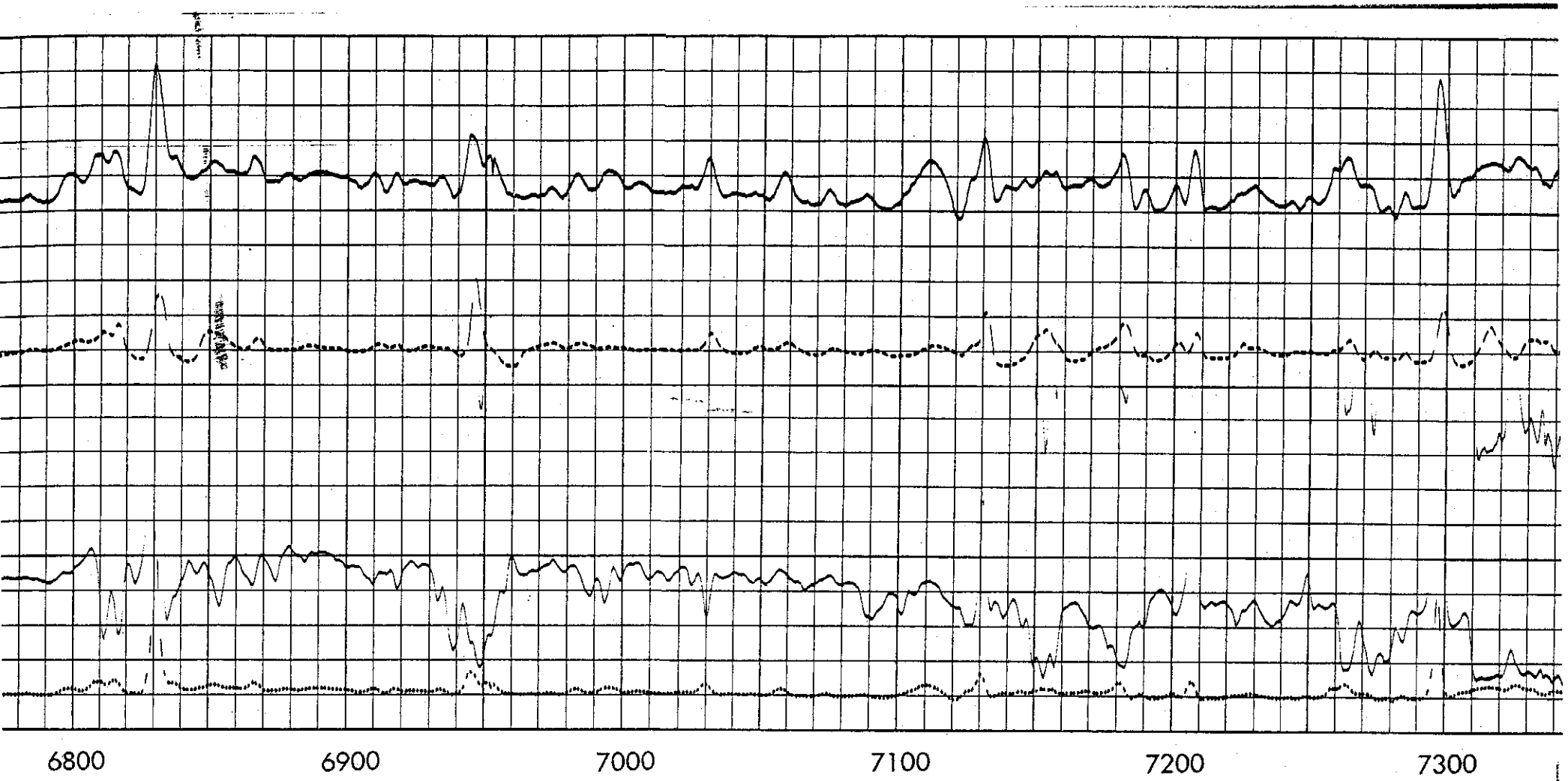
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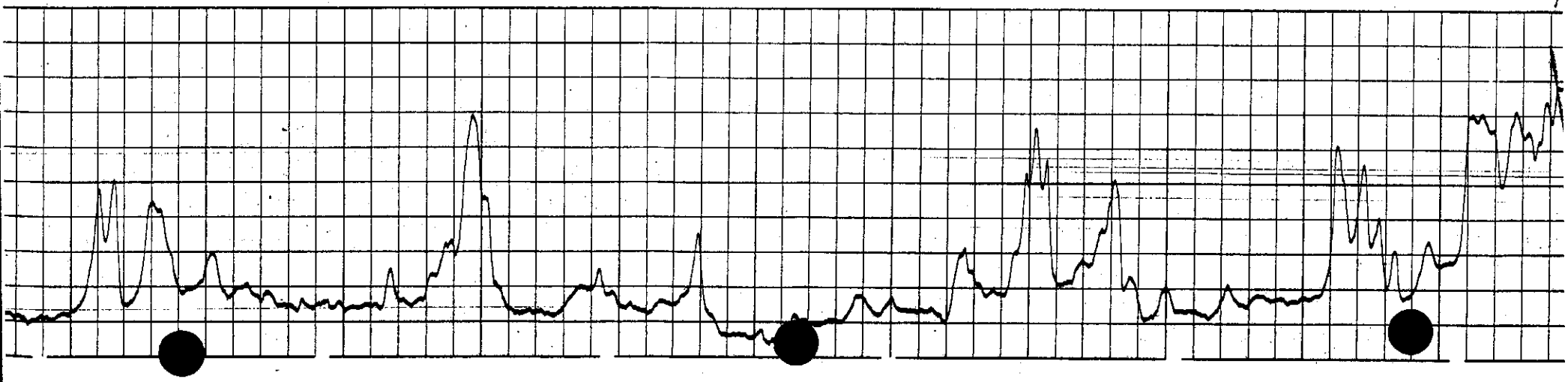

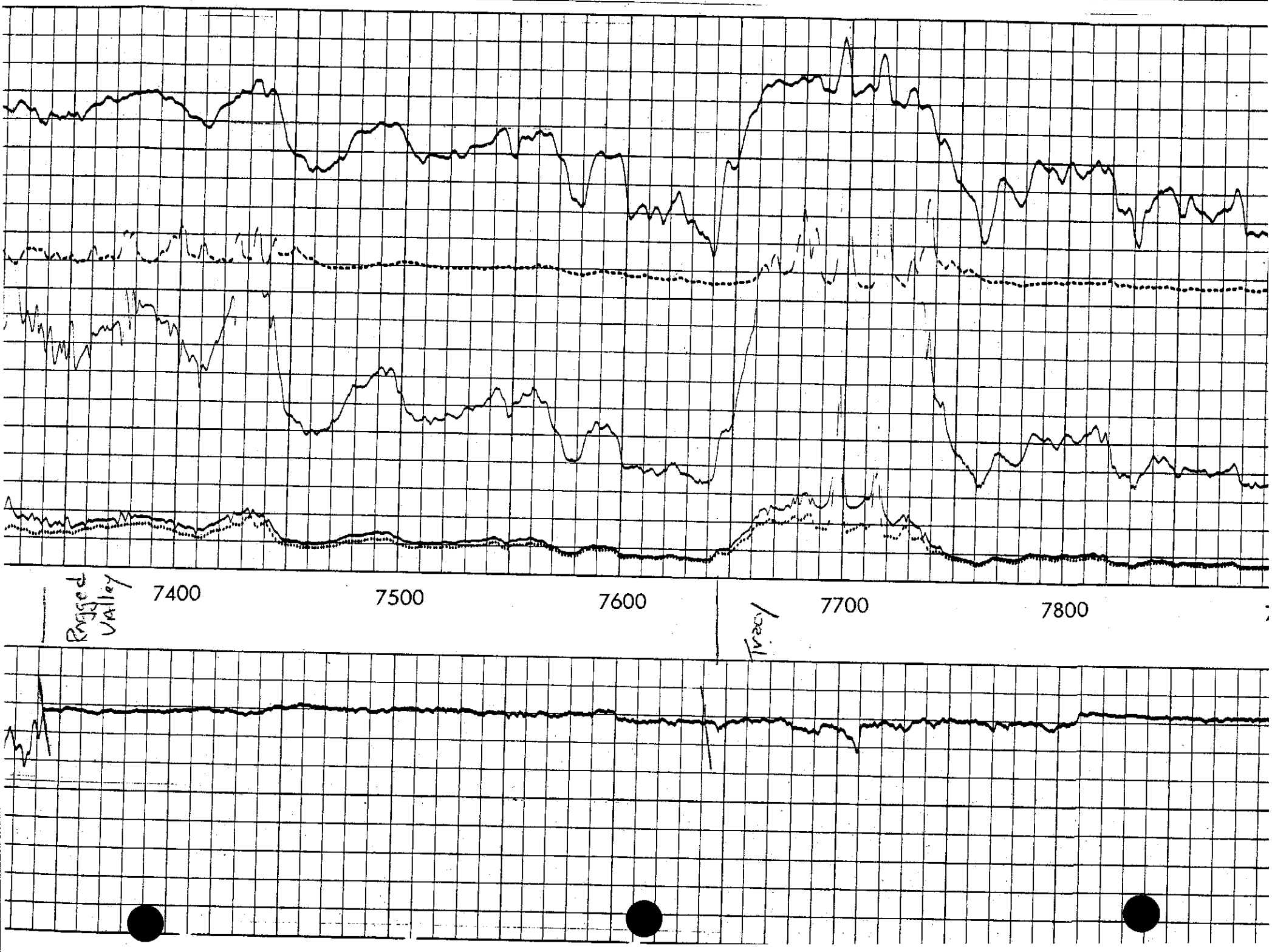
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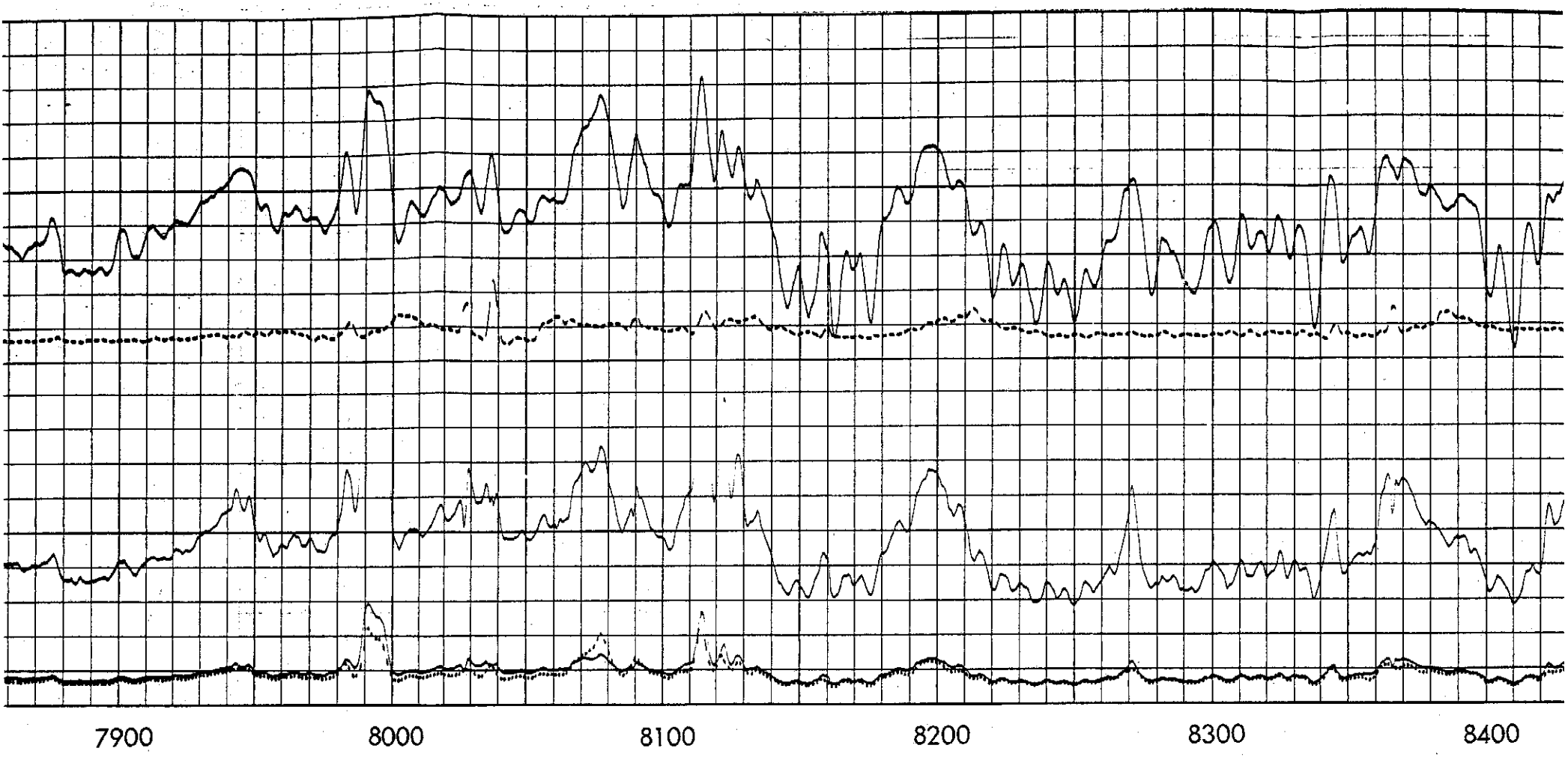
7500
7600
Trazy
7700
7800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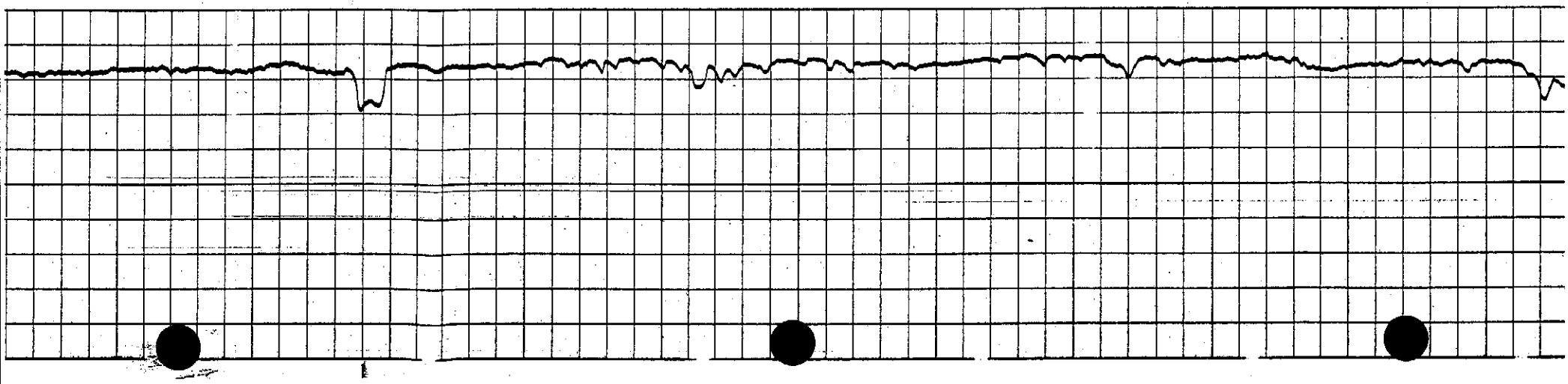


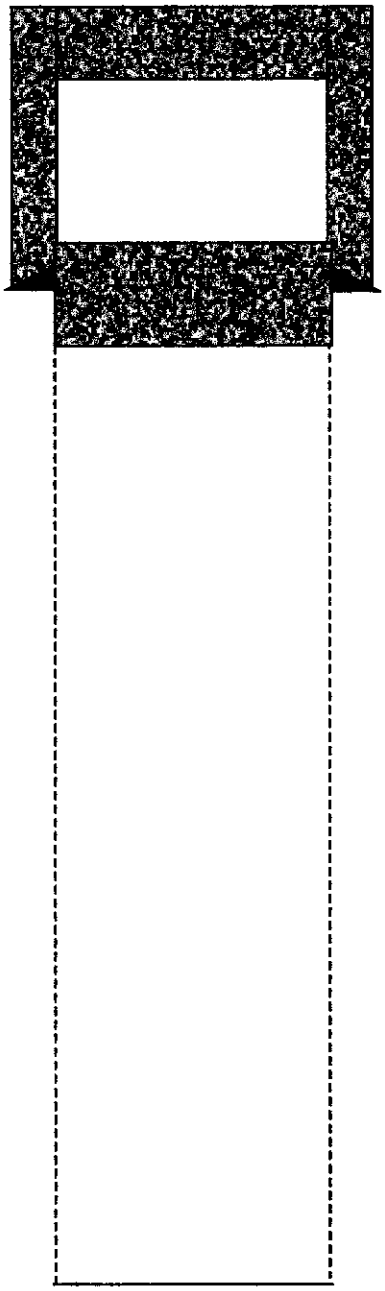
00
8500
8600
8700
8800
8900

LATHROP SAND
8900
9000
9100
9200
9300
10
0
20
1000

Amerada Petroleum Corp. "Lundquist Unit" 1

Hilmar Area: Lundquist Unit #1
1200' S + 1200' W f/NE corner, sec. 16, T6S/R10E, MDB&M

KB = 100.69' (GL + 15.5')



Well drilled & logged, then plugged and abandoned in 1-69.

10 3/4" 40.5# J-55 csg cem @ 716' to surface w/500 sx

Cement plugs @ 0-10'; 664-766'. Remaining hole filled with drilling mud.

8 3/4" hole drilled to 9,775'

TD = 9,775'

FORM 100

STATE OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

WELL SUMMARY REPORT

1

SUBMIT IN DUPLICATE

Operator Amerada Petroleum Corporation Well No. "Lundquist Unit" No. 1

Sec. 16, T. 6S, R. 10E, M.D. B. & M. Hilmar Area Field Merced County.

Location 1200' South and 1200' West from the Northeast corner of Section 16, T. 6S, R. 10E
(Give location from property or section corner, or street center lines)

Elevation of ground above sea level 85.19 feet.

All depth measurements taken from top of Kelly Bushing which is 15.50 feet above ground.
(Derrick Floor, Rotary Table or Kelly Bushing)

In compliance with Sec. 3215, of the Public Resources Code, the information given herewith is a complete and correct record of the present condition of the well and all work done thereon, so far as can be determined from all available records.

Date January 27, 1969 Signed R. A. Holman

C. E. Loudermilk (XXXXXXXXXX) J. W. Lagler Dist. (Superintendent) Title Superintendent (President, Secretary or Agent)

Commenced drilling January 7, 1969

Completed drilling January 24, 1969

Total depth 9775' Plugged depth Surface

Junk None

GEOLOGICAL MARKERS DEPTH

Geologic age at total depth: Upper Cretaceous

Commenced producing (Date) Flowing/gas lift/pumping (Cross out unnecessary words) Name of producing zone

	Clean Oil bbl. per day	Gravity Clean Oil	Per Cent Water including emulsion	Gas Mcf. per day	Tubing Pressure	Casing Pressure
Initial production						
Production after 30 days						

CASING RECORD (Present Hole)

ze of Casing (A. P. I.)	Depth of Shoe	Top of Casing	Weight of Casing	New or Second Hand	Seamless or Lapweld	Grade of Casing	Size of Hole Drilled	Number of Sacks of Cement	Depth of Cementing if through perforatio
0 3/4"	716'	Surface	40.5#	New	Seamless	J-55	15"	500	

PERFORATED CASING
(Size, top, bottom, perforated intervals, size and spacing of perforation and method.)

12

Was the well directionally drilled? No Electrical Log Depths 9770' to 716' (Attach Copy of Log)

FORM 103

SUBMIT IN DUPLICATE

26538-705 7-64 25M △ OSP

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

History of Oil or Gas Well

OPERATOR Amerada Petroleum Corporation FIELD Hilmar Area

Well No. "Lundquist Unit" No. 1, Sec. 16, T. 6S, R. 10E, M.D. B. & M.

Date January 27, 1969 Signed R. A. Holman

550 South Flower Street (Address) 213-624-9544 (Telephone Number) Title Superintendent (President, Secretary or Agent)

Los Angeles, California

It is of the greatest importance to have a complete history of the well. Use this form to report a full account of all important operations during the drilling and testing of the well or during re-drilling, altering of casing, plugging, or abandonment with the dates thereof. Be sure to include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests, shooting and initial production data.

Date	
12-23-68	Survey Location: 1200' South and 1200' West from the Northeast corner of Section 16, T. 6S, R. 10E, M.D.B. & M., Merced County, California. Elevation: Ground 85.19' (U.S.G.S.) Ground to Kelly Bushing 15.50' Kelly Bushing 100.69'
1- 3- 69	Prepared Location. Dug conductor hole. Cemented 18" O.D. conductor casing at 55' Kelly Bushing measurement, with 4 yards of ready mix concrete. Dug and cribbed cellar. Dug rat hole for contractor.
1- 6 -69	Moved in and began rigging up drilling equipment.
1- 7 -69	Completed rigging up equipment. Spudded in at 8:00 P.M. Drilled 15" hole through sand and clay to 716'.
1- 8 -69	Cemented 10 3/4" casing at 716'. Ran 18 joints, 721.97', of 10 3/4" O.D., 40.5#, J-55, new, seamless casing, equipped with guide shoe on bottom and float collar that fell at 696'. Tack welded and Baker-Locked bottom 4 collars. Spaced 3 centralizers from 706' to 614'. Cemented casing with 400 sacks Class "G" cement followed by 100 sacks Class "G" cement treated with 2% Calcium Chloride. Used top and bottom cement plugs. Cement in place at 9:45 A.M. Observed good cement returns at surface. Landed 10 3/4" casing. Cut off casing and welded on 10" Series 900 casing head. Tested welds with 3000 psig. Installed Blowout prevention equipment consisting of 12" Series 900 dual gate and 3000 bag.

1- 9-69 Tested complete shut off rams with 1500 psig. for 15 minutes without loss of fluid. Ran 9 7/8" Bit, tested 4½" pipe rams and bag with 1500 psig. each for 15 minutes with out loss of fluid. Drilled out plugs, cement, and shoe. Drilled 9 7/8" hole through sand and clay to 2980'.

1-10-69 Drilled 9 7/8" hole through sand and clay to 4563'.

1-11-69 Drilled 9 7/8" hole through sand and clay to 4583', drilled 8 3/4" hole through sand and clay to 5648'.

1-12-69 Drilled 8 3/4" hole through sand and shale to 6789'.

1-13-69 Drilled 8 3/4" hole through sand and shale to 7396'.

1-14-69 Drilled 8 3/4" hole through sand and silt stone to 7825'.

1-15-69 Drilled 8 3/4" hole through sand and silt stone to 8304'.

1-16-69 Drilled 8 3/4" hole through sand and sand stone to 8580'.

1-17-69 Drilled 8 3/4" hole through shale to 8923'.

1-18-69 Drilled 8 3/4" hole through shale to 9133'.

1-19-69 Drilled 8 3/4" hole through shale and sand to 9304'.

1-20-69 Drilled 8 3/4" hole through shale to 9461'.

1-69 Drilled 8 3/4" hole through shale and sand to 9706'.

1-22-69 Drilled 8 3/4" hole through sand and shale to 9775'.
Ran Induction Electric Log from 9770' to 716'.

1-23-69 Ran Acoustical Velocity Log from 9768' to 716'.
Ran Dip Log from 9770' to 3000'.

1-24-69 Laid down drill pipe.

1-24-69 Cement Plug No. 1: Equailzed 60 sacks Class "G" cement treated with 3% Calcium Chloride, through drill pipe hanging at 766'. Laid down drill pipe. Wait on cement. Located top of cement plug at 664'. Witnessed and spproved by F. L. Hill of the Division of Oil and Gas.
Laid down balance of drill pipe. Removed Blowout prevention equipment. Cut off casing head, installed 10' cement plug, 15' below ground level. Welded ½" steel plate on casing stub. Released drilling rig at 4:00 P.M. January 24, 1969. Well abandoned.

FORM 159

1

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

WILDCAT LIST 1969

REPORT OF WELL ABANDONMENT

Coalinga California

February 19 1969

Mr. L W Lagler
AMERADA PETROLEUM CORPORATION
Box 417
Rio Vista California 94571

DEAR SIR:

Your report of abandonment of Well No. "Lindquist Unit" 1 (047-20007), Sec 16, T 6S, R 10E, M D B. & M., -- field, Merced County, dated January 27 1969, received February 18 1969, has been examined in conjunction with records filed in this office.

A review of the reports and records shows that the requirements of this Division, which are based on all information filed with it, have been fulfilled.

Blanket Bond
FLH:fd
cc: Company L A
Conservation Committee

F. E. KASLINE
State Oil and Gas Supervisor

By C. H. Carlson
Deputy Supervisor

Welex

2" = 100'

INDUCTION • ELECTRIC LOG

COMPANY AMERADA PET. CORPORATION
WELL LUNDQUIST UNIT #1
FIELD HILMAR AREA
County MERCED State CALIF.

COMPANY AMERADA ~~PETROLEUM~~ Hess CORPORATION
(047-20007)
RECEIVED
WELL LUNDQUIST UNIT No. 1 FEB 10 1969
FIELD HILMAR AREA COALINGA, CALIFORNIA
COUNTY MERCED STATE CALIFORNIA

Location 1200' S & 1200' W. FROM THE N.E. CORNER OF:
Sec. 16 Twp 6 S Rge 10 E M.D.B.&M.

Other Services:
AVL
DIP
12

Permanent Datum GL Elev. 85.19'
Log Measured From KB OR 15.5 Ft. Above Perm. Datum
Drilling Measured From KB

Elev.: K.B. 100.69
D.F.
G.L. 85.19

Date	1-22-69			
Run No.	ONE			
Depth—Driller	9775'			
Depth—Welex	9775'			
Btm. Log Inter.	9770'			
Top Log Inter.	716'			
Casing—Driller	10 3/4" @ 716'	@	@	@
Casing—Welex	716'			
Bit Size	9 7/8" X 8 3/4" @ 4583'			
Type Fluid in Hole	CLAY BASE MUD			
Dens. | Visc.	83 | 48	|	|	|
pH | Fluid Loss	9.5 | 14.9 ml	| ml	| ml	| ml
Source of Sample	CIRCULATED			
R_m @ Meas. Temp.	2.96 @ 42 °F	@ °F	@ °F	@ °F
R_{mf} @ Meas. Temp.	3.62 @ 40 °F	@ °F	@ °F	@ °F
R_{mc} @ Meas. Temp.	3.48 @ 40 °F	@ °F	@ °F	@ °F
Source R_{mf} R_{mc}	MEASURED	|	|	|
R_m @ BHT	.65 @ 216 °F	@ °F	@ °F	@ °F
Time Since Circ.	4 HOURS			
Max. Rec. Temp.	216°F @ BHT	°F @	°F @	°F @
Equip. | Location	633 | IWDLND	|	|	|
Recorded By	SCHOFIELD			
Witnessed By	MR. LOUDERMILK, MR. SIDWELL			

Fold Here

Service Ticket No. 27066 Remarks: RIG TIME 2 1/2 HOURS

SCALE CHANGES

Type Log	Depth	Scale Up Hole	Scale Down Hole

EQUIPMENT DATA

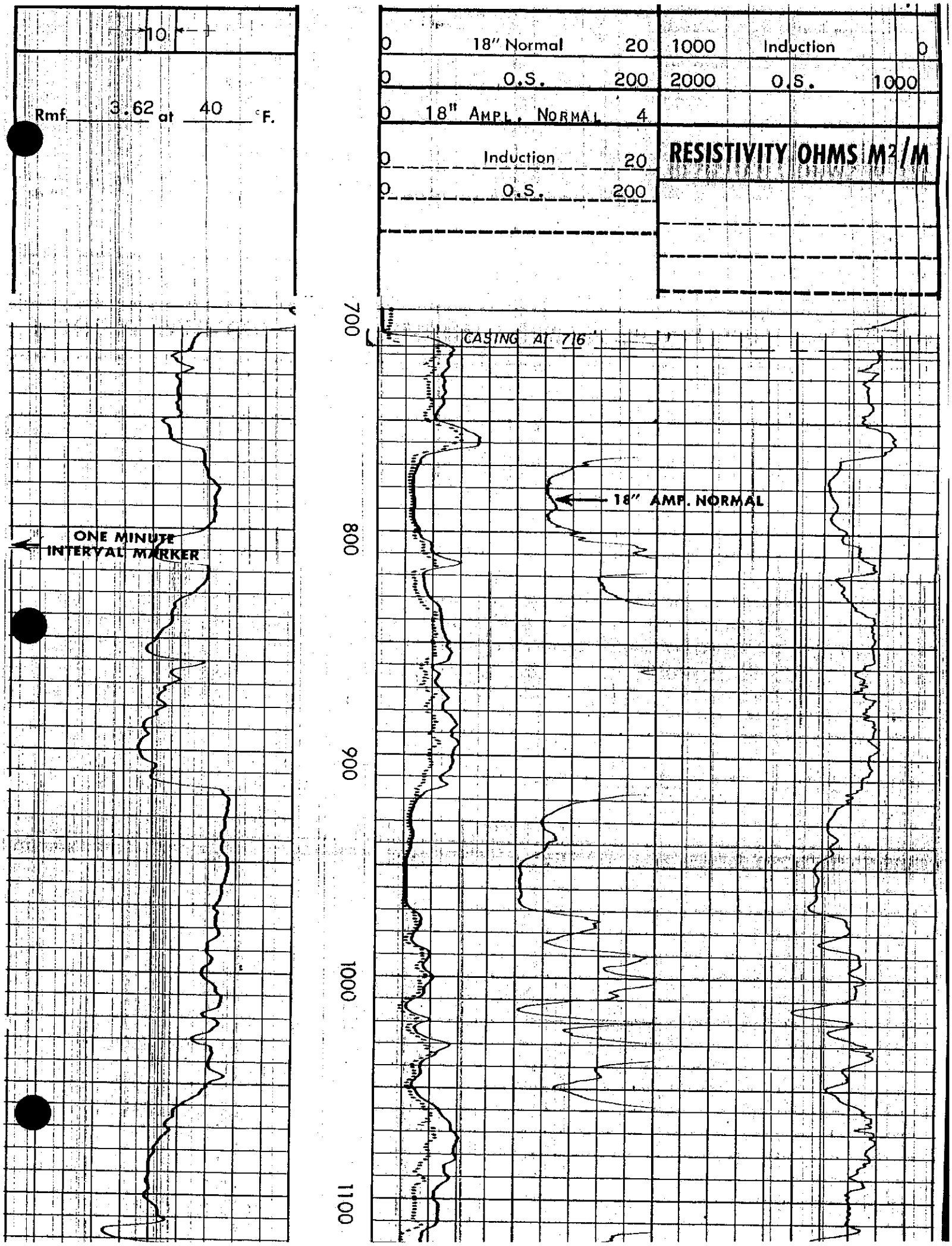
Run No.	Tool Type and No.	Pad Type	Tool Position	Other
ONE	IEL 10585		FREE	

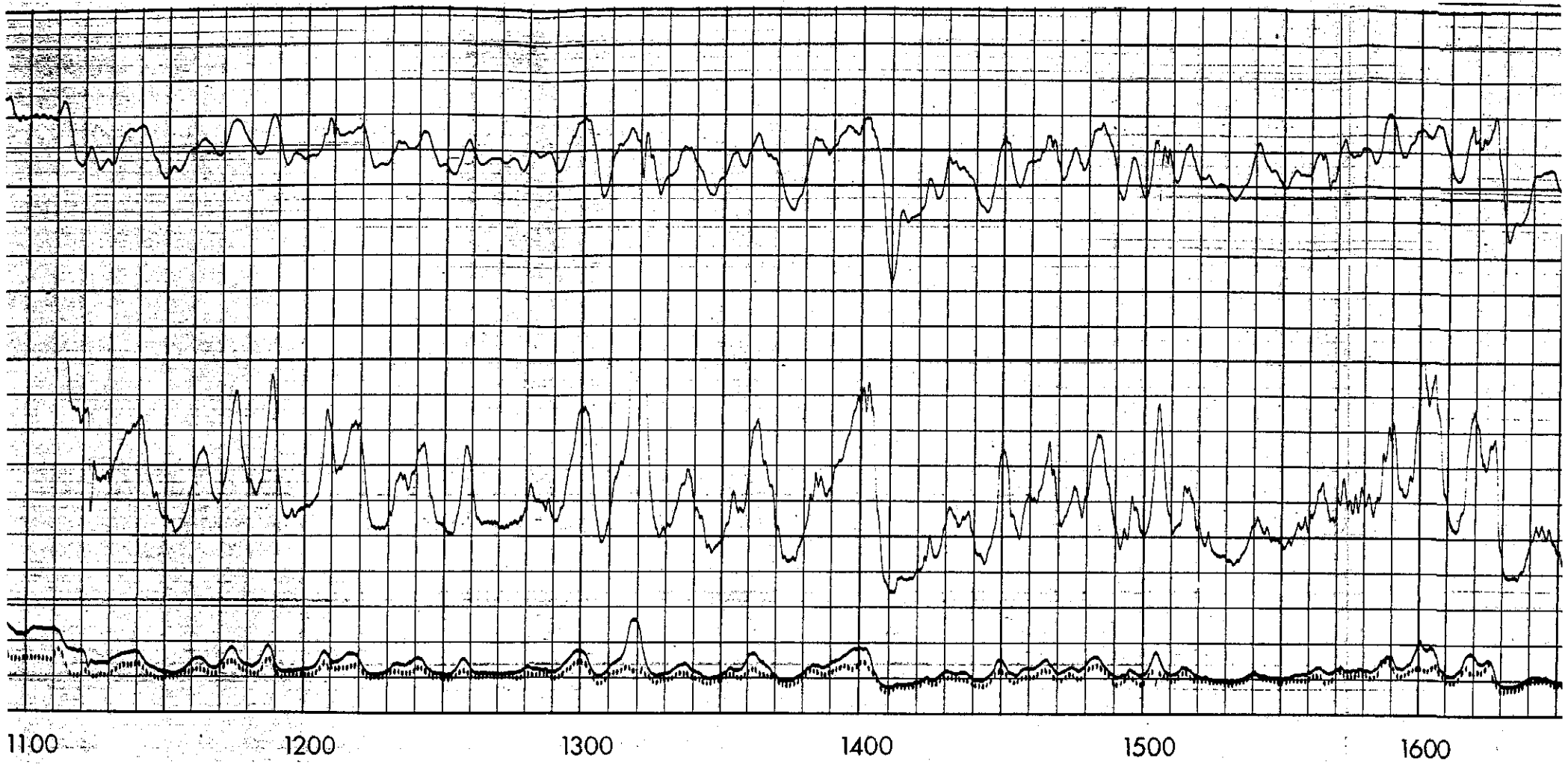
Change in Mud Type or Additional Samples

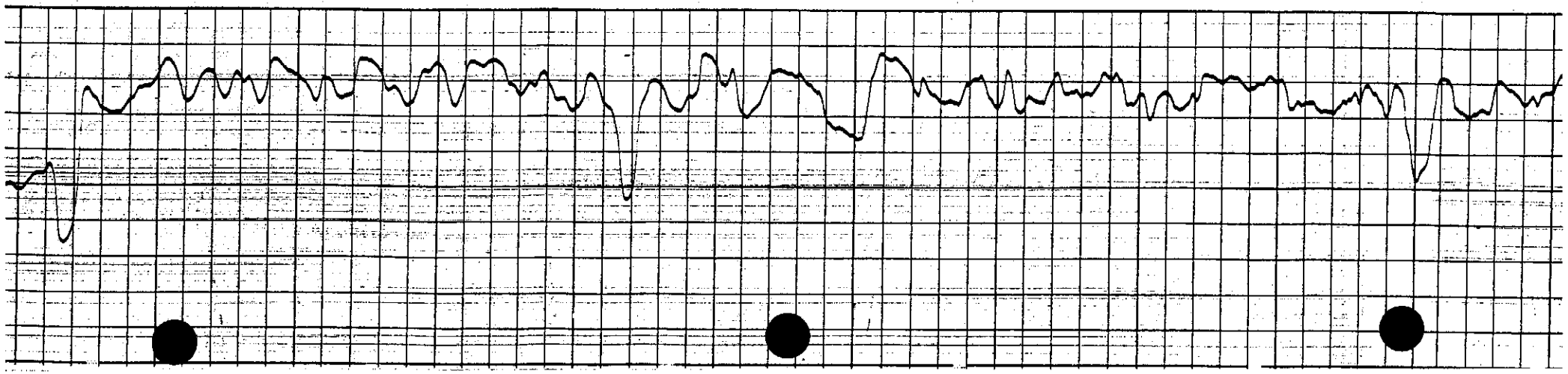
Date	Sample No.	Depth—Driller	Type Fluid in Hole	Dens. | Visc.	pH | Fluid Loss	Source of Sample	R_m @ Meas. Temp.	R_{mf} @ Meas. Temp.	R_{mc} @ Meas. Temp.	Source: R_{mf} | R_{mc}	R_m @ BHT	R_{mf} @ BHT	R_{mc} @ BHT
|	|			|	|	|	@ °F	@ °F	@ °F	|	@ °F	@ °F	@ °F
											.65 @ 216°F	.80 @ 216°F	.75 @ 216°F

2" 100'

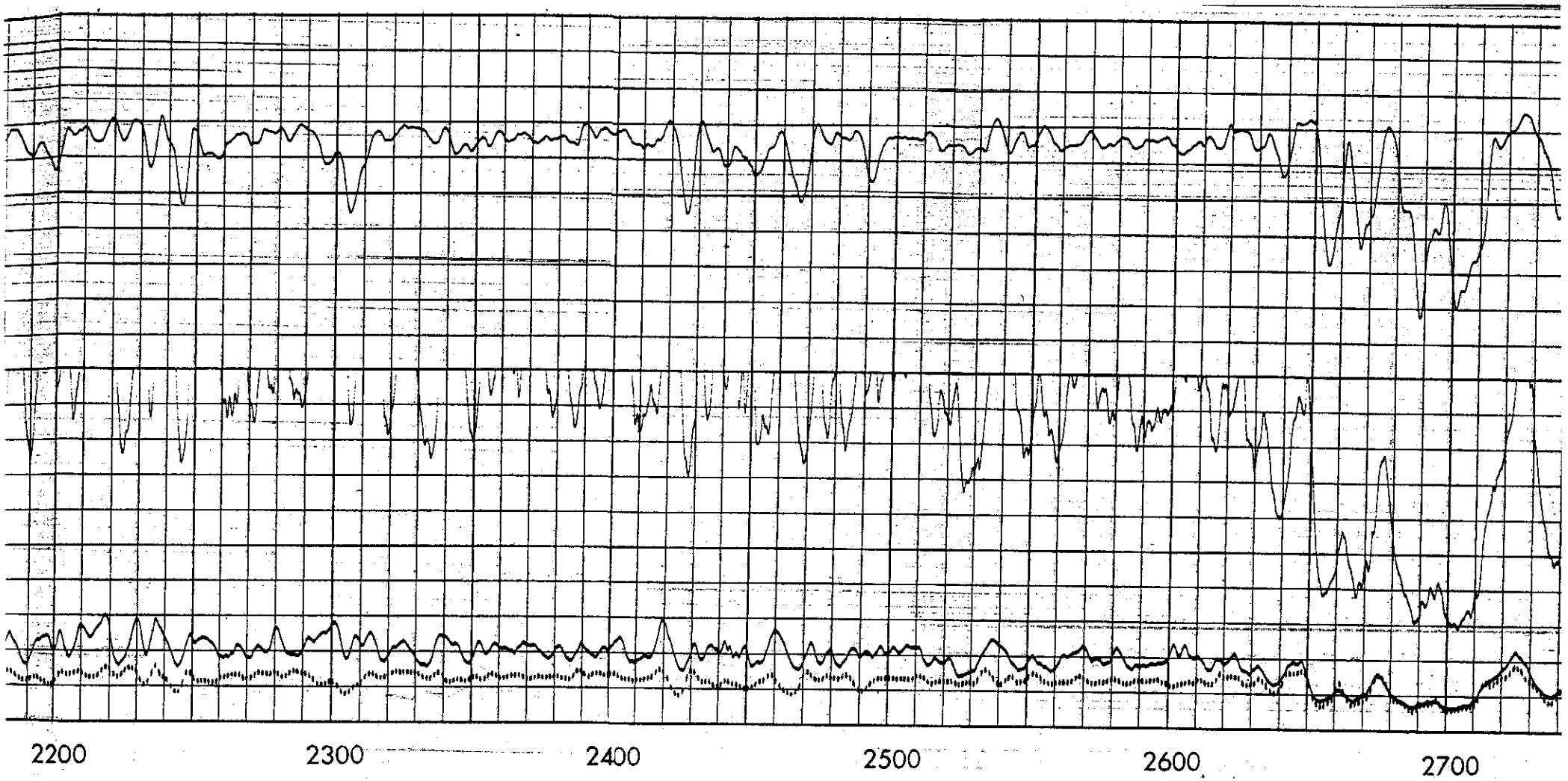
POTENTIAL MILLIVOLTS | RESISTIVITY OHMS M²/M | CONDUCTIVITY M MHOS/M


10
Rmf 3.62 at 40 °F.
ONE MINUTE INTERVAL MARKER
0 18" Normal 20
0 O.S. 200
0 18" AMPL. NORMAL 4
0 Induction 20
0 O.S. 200
1000 Induction 0
2000 O.S. 1000
RESISTIVITY OHMS M²/M
700
800
900
1000
1100
CASING AT 716'
18" AMP. NORMAL


1100
1200
1300
1400
1500
1600



1700
1800
1900
2000
2100
2200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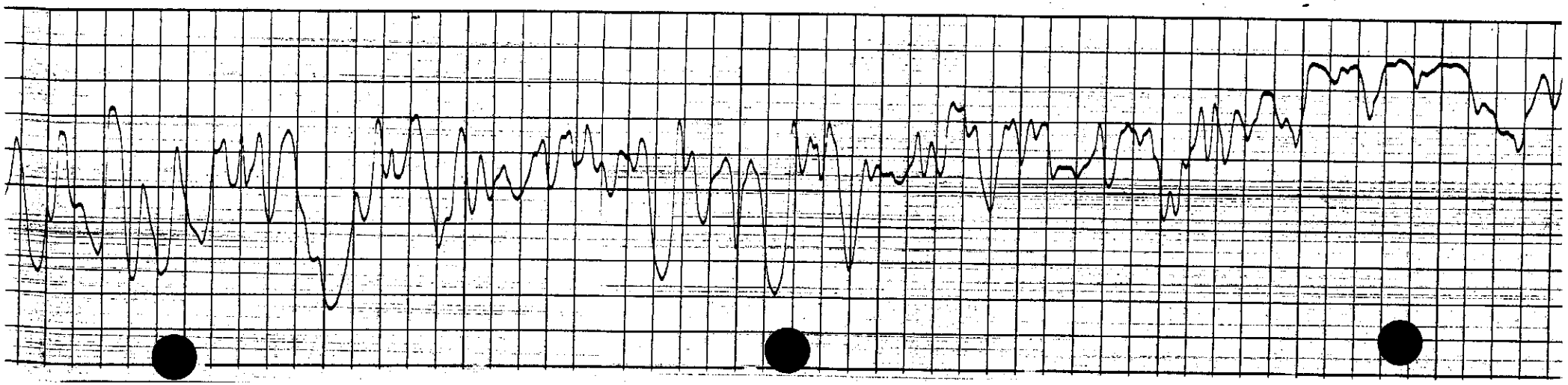
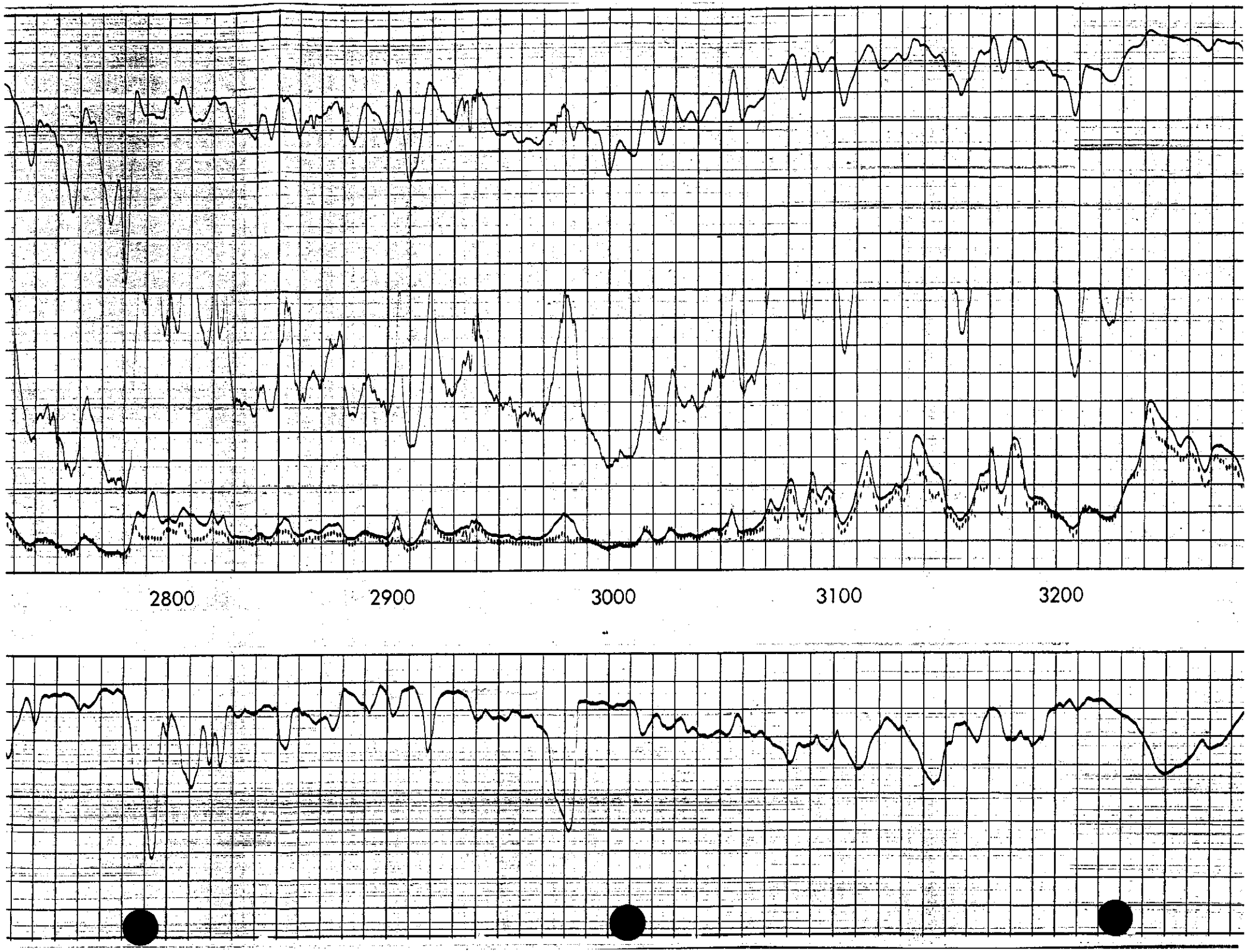
2300
2400
2500
2600
2700

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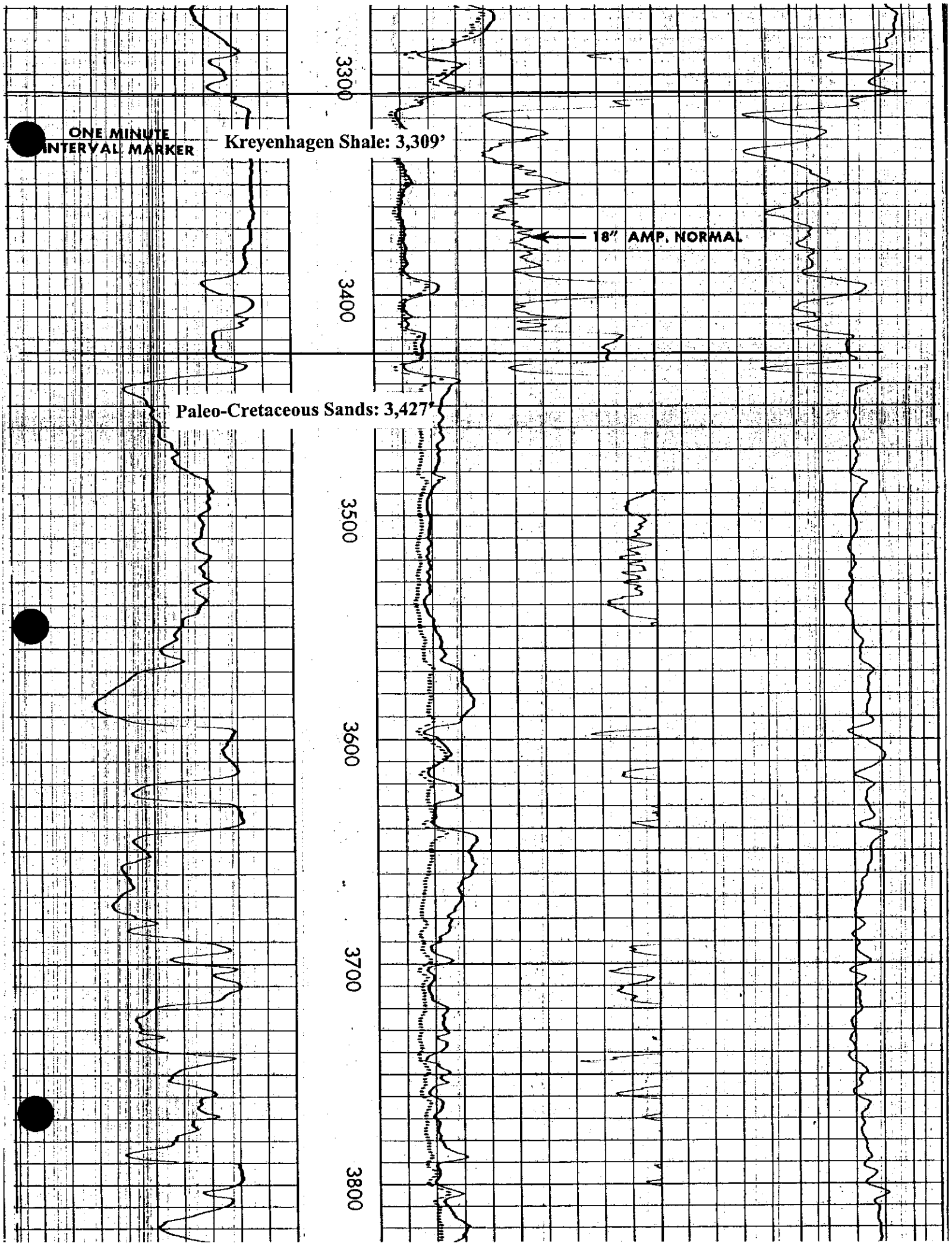
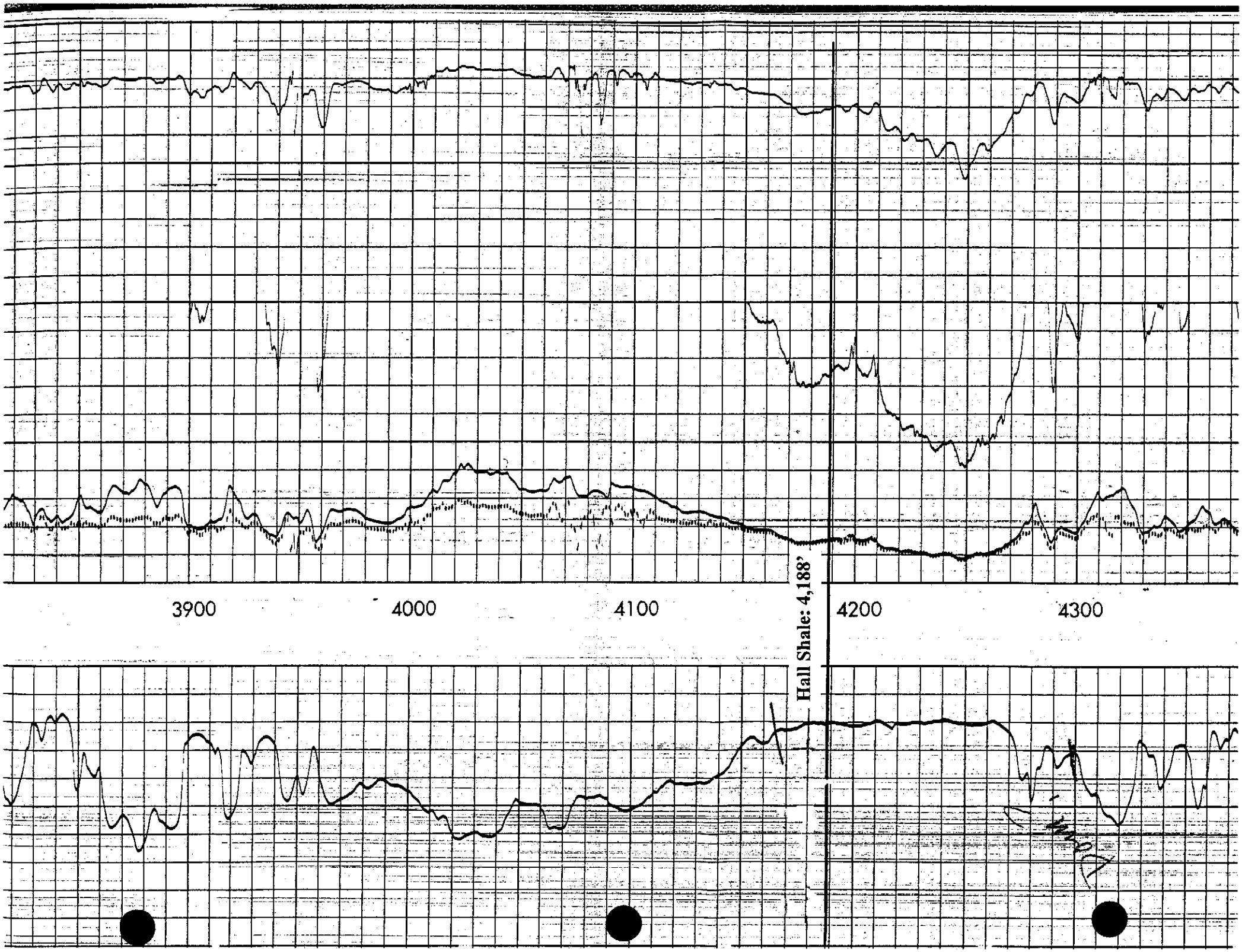
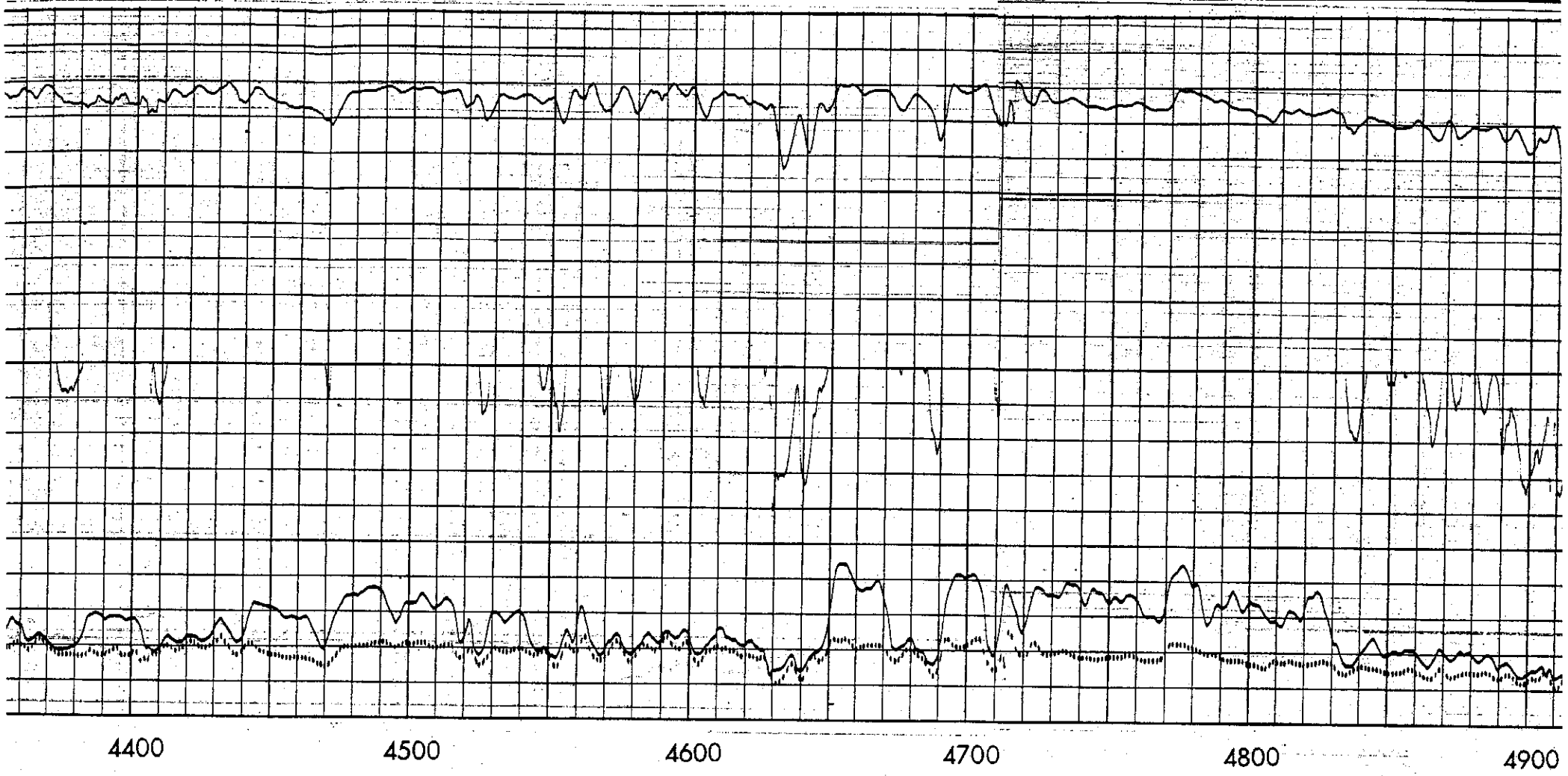
2900
3000
3100
3200


3300
ONE MINUTE INTERVAL MARKER
Kreyenhagen Shale: 3,309'
18" AMP. NORMAL
3400
Paleo-Cretaceous Sands: 3,427'
3500
3600
3700
3800


3900
4000
4100
4200
4300
Hall Shale: 4,188'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4800
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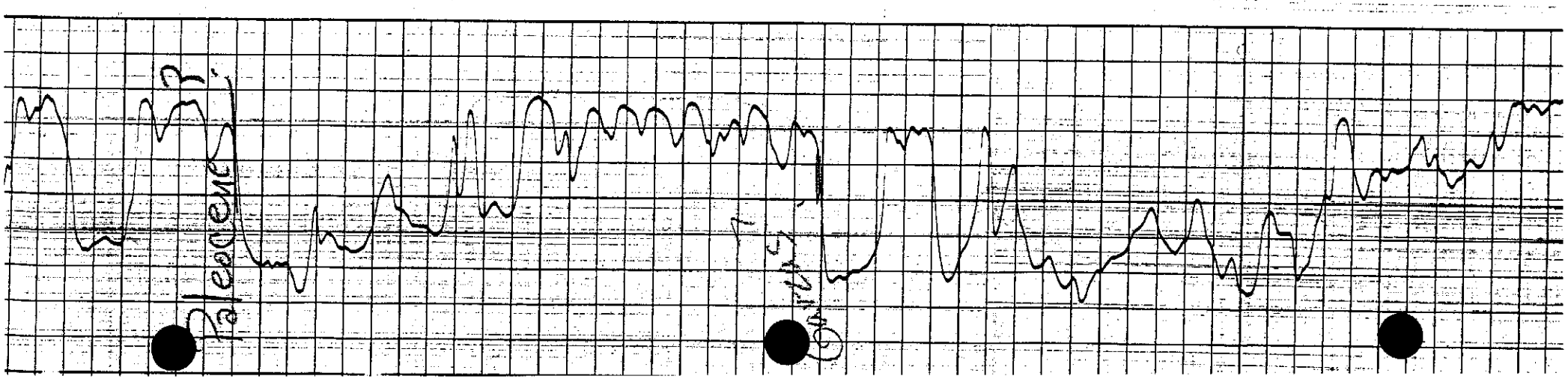
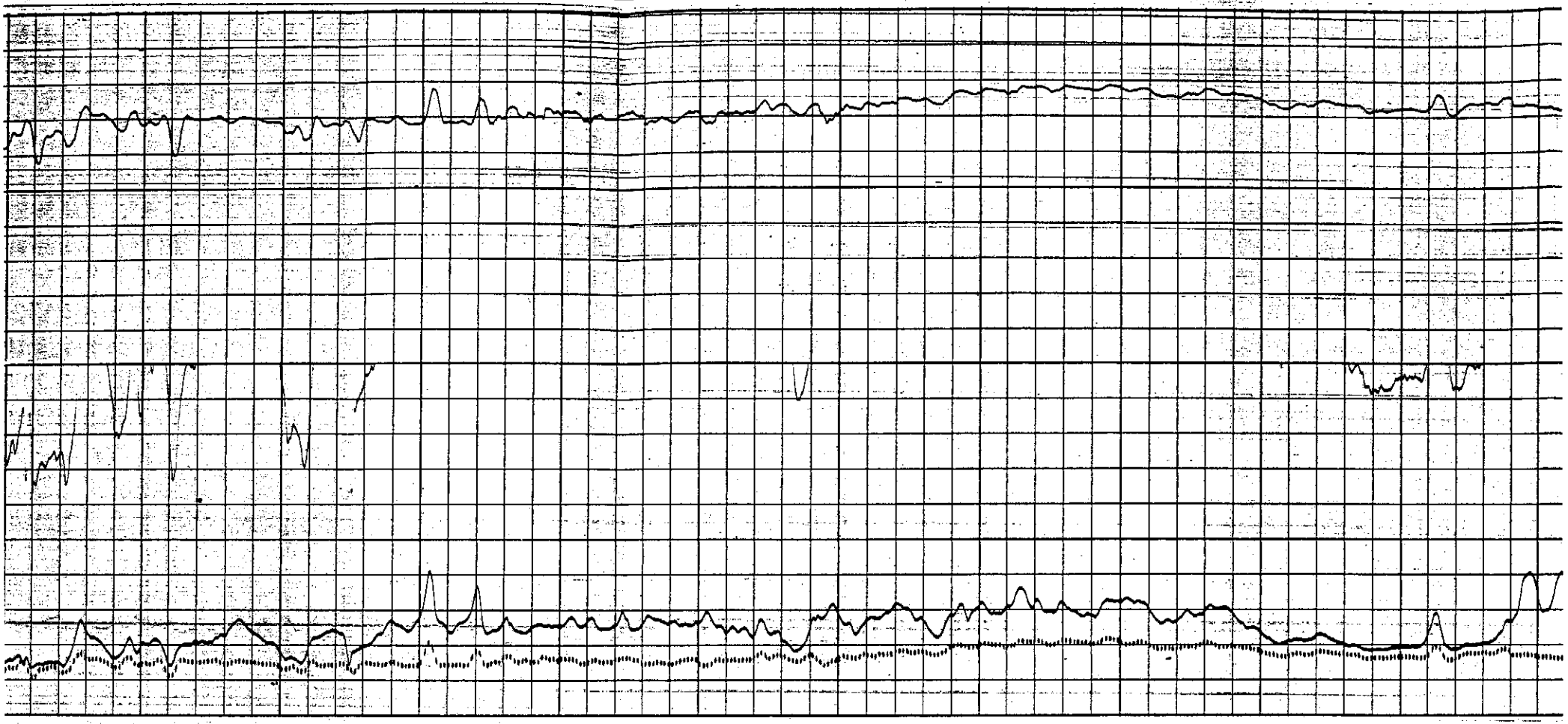

Paleocene



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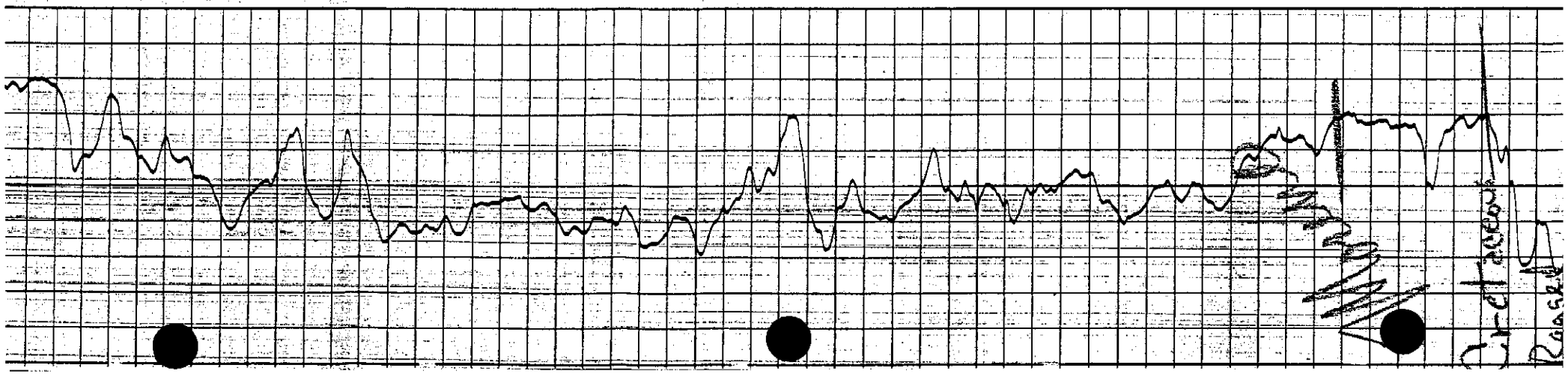

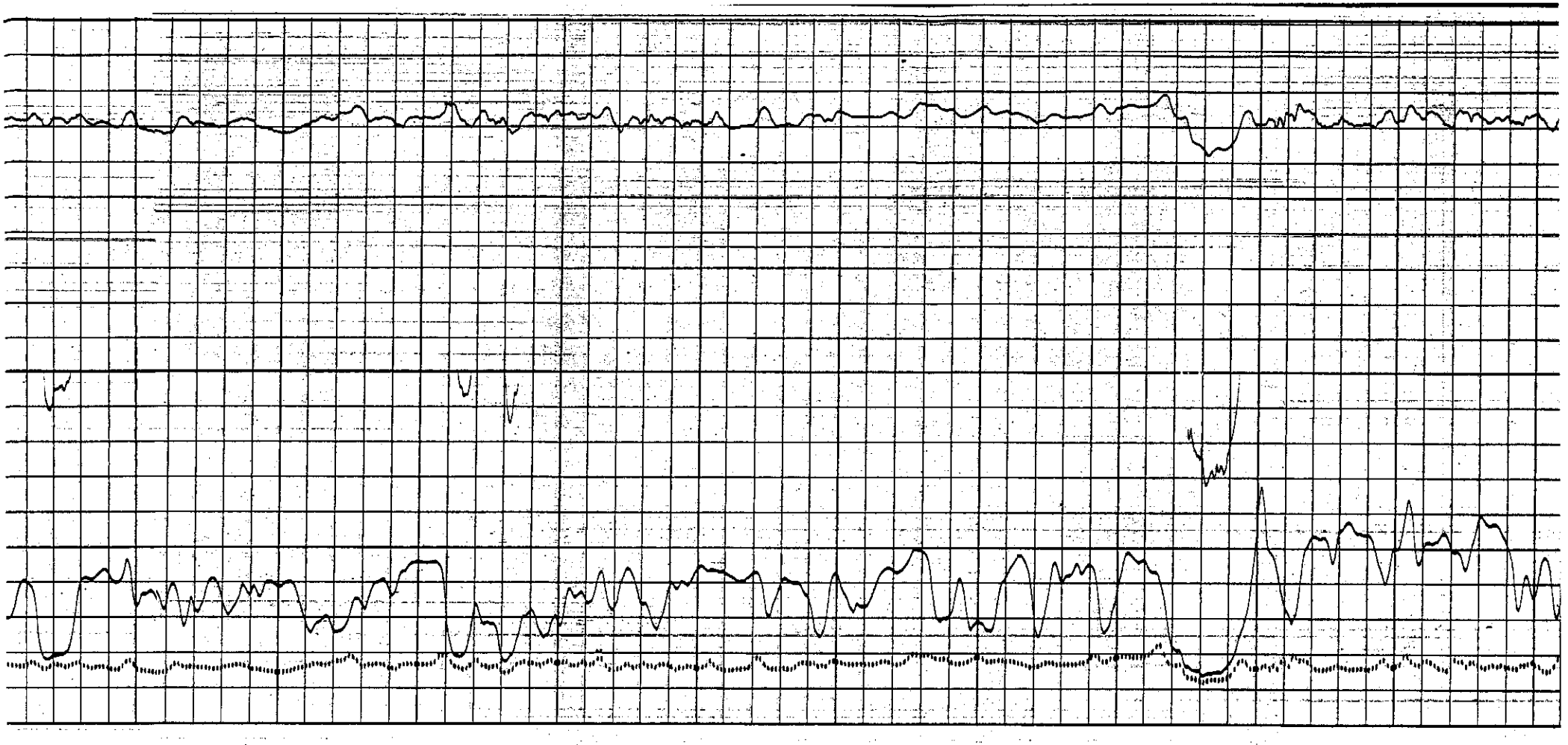
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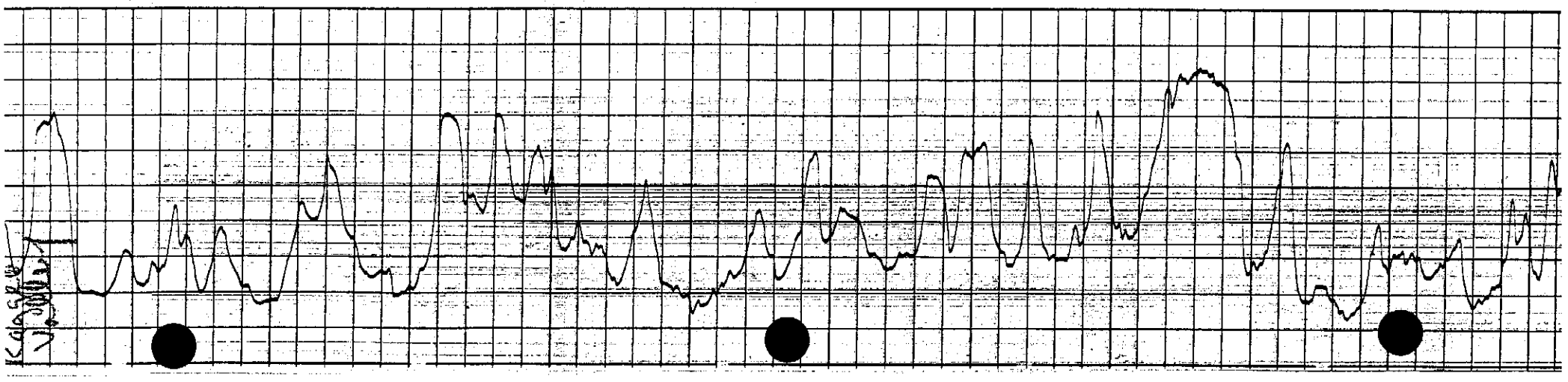
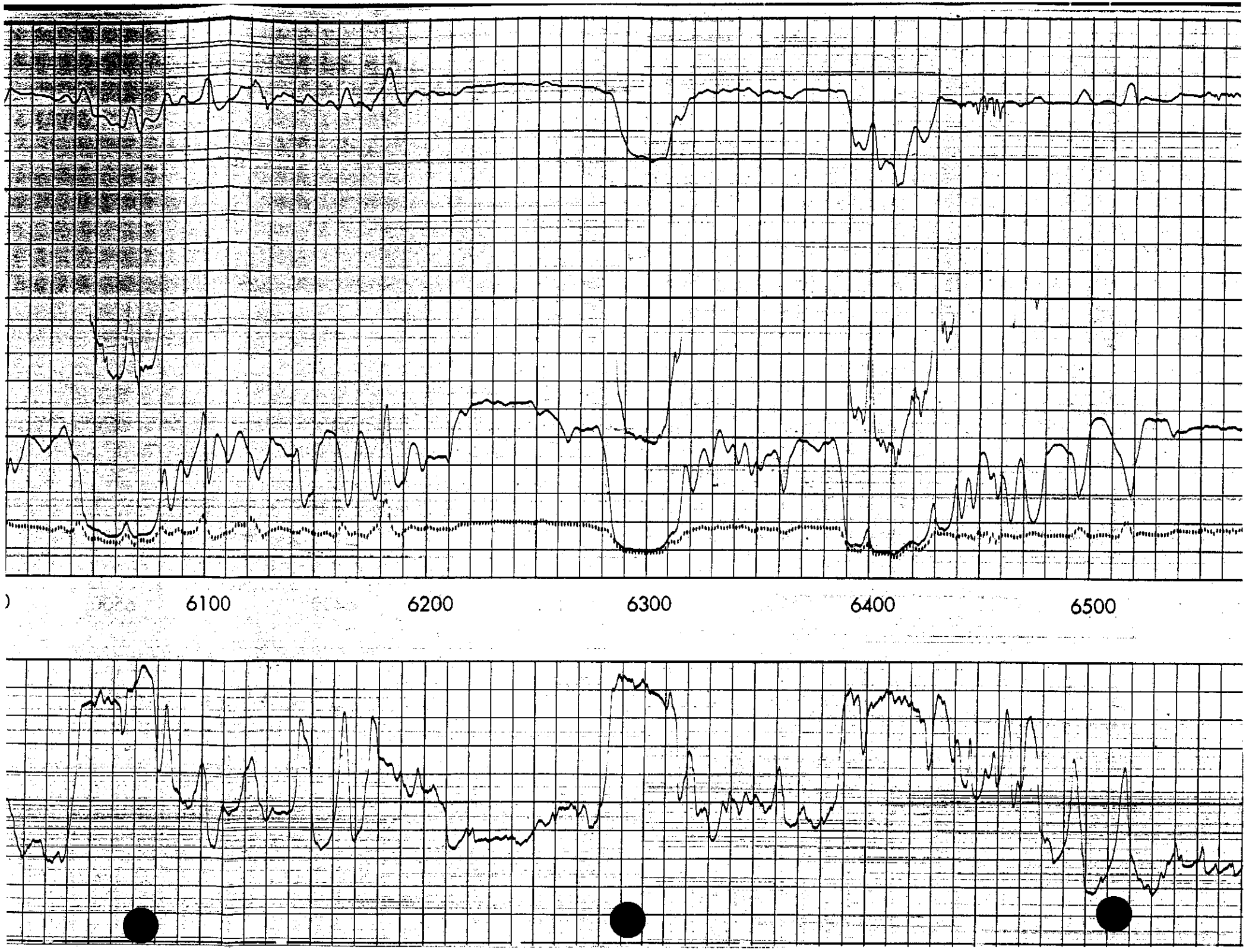
5600
5700
5800
5900
6000

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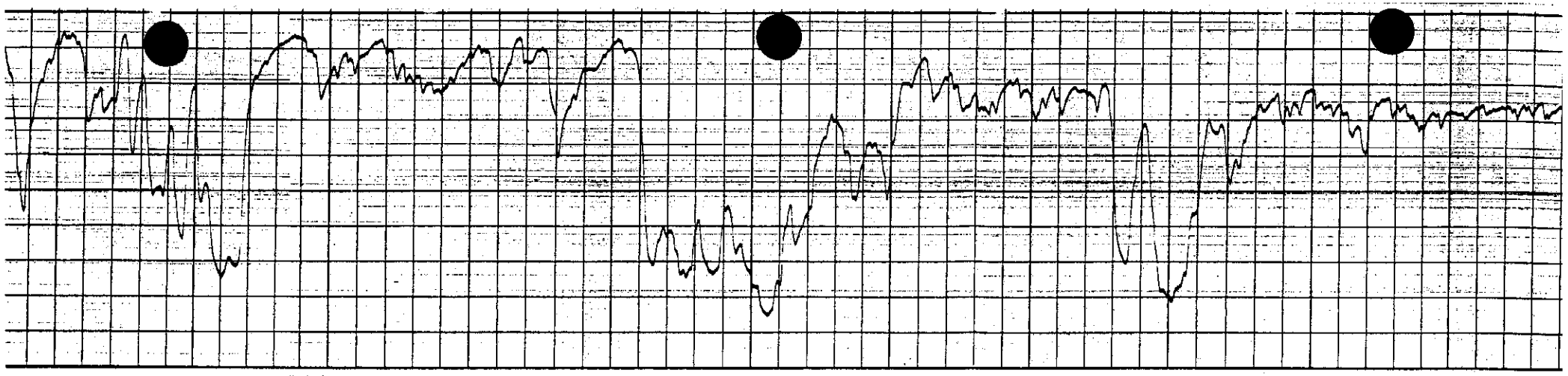
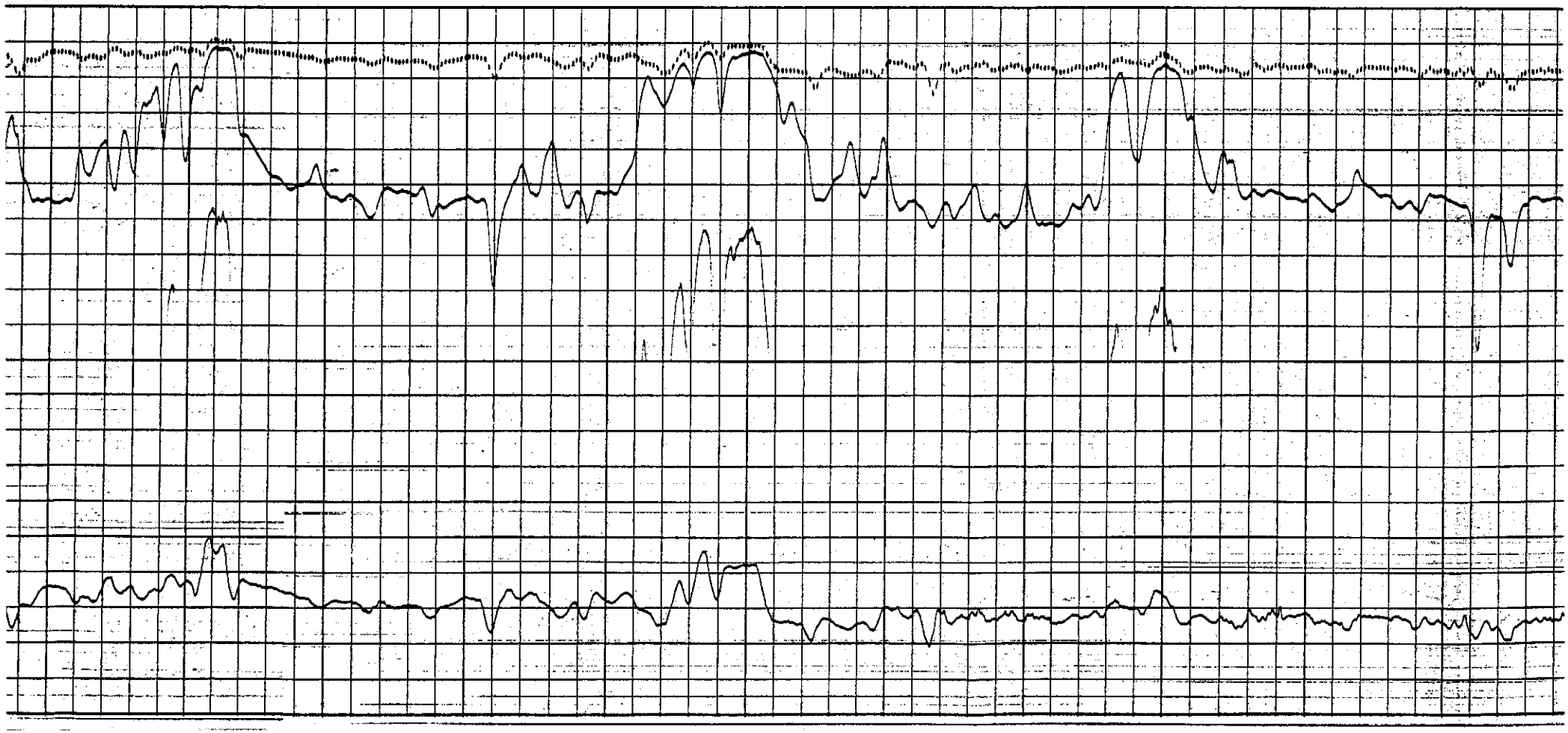
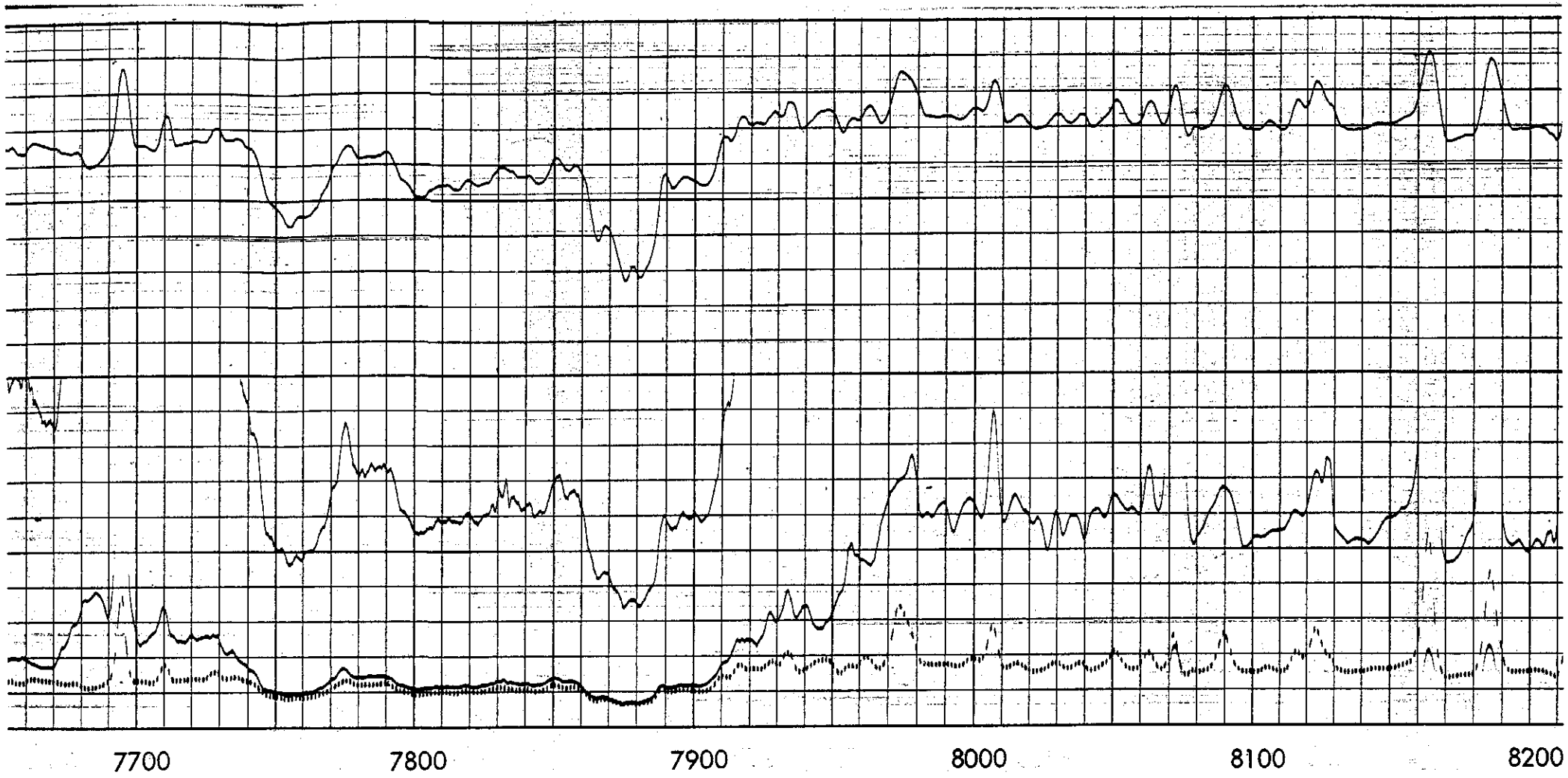
6200
6300
6400
6500



7100 7000 6900 6800 6700 6600



7200
7300
7400
7500
7600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8000
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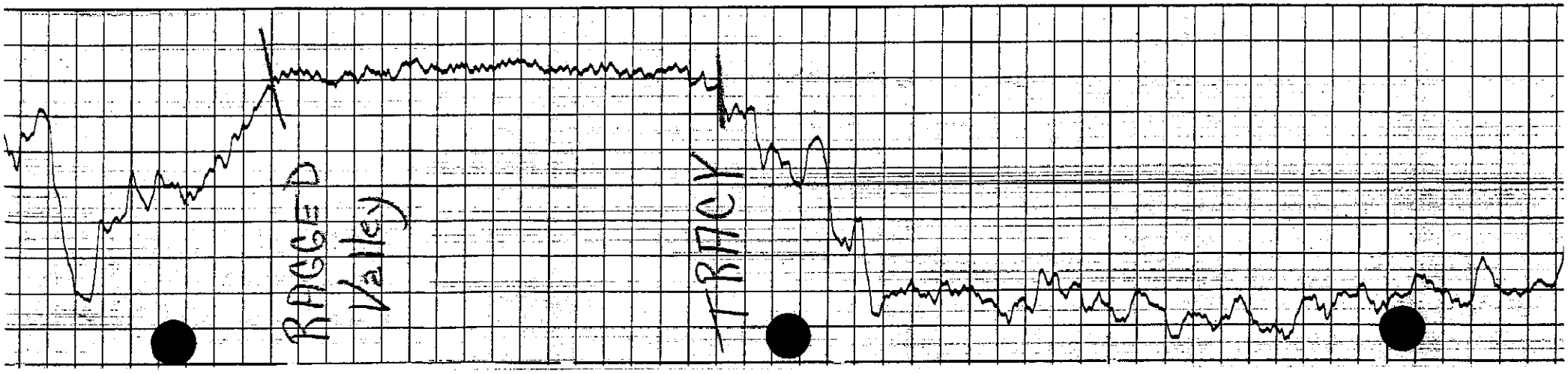
8200


RAGGED
Valley
TRACY

200
8300
8400
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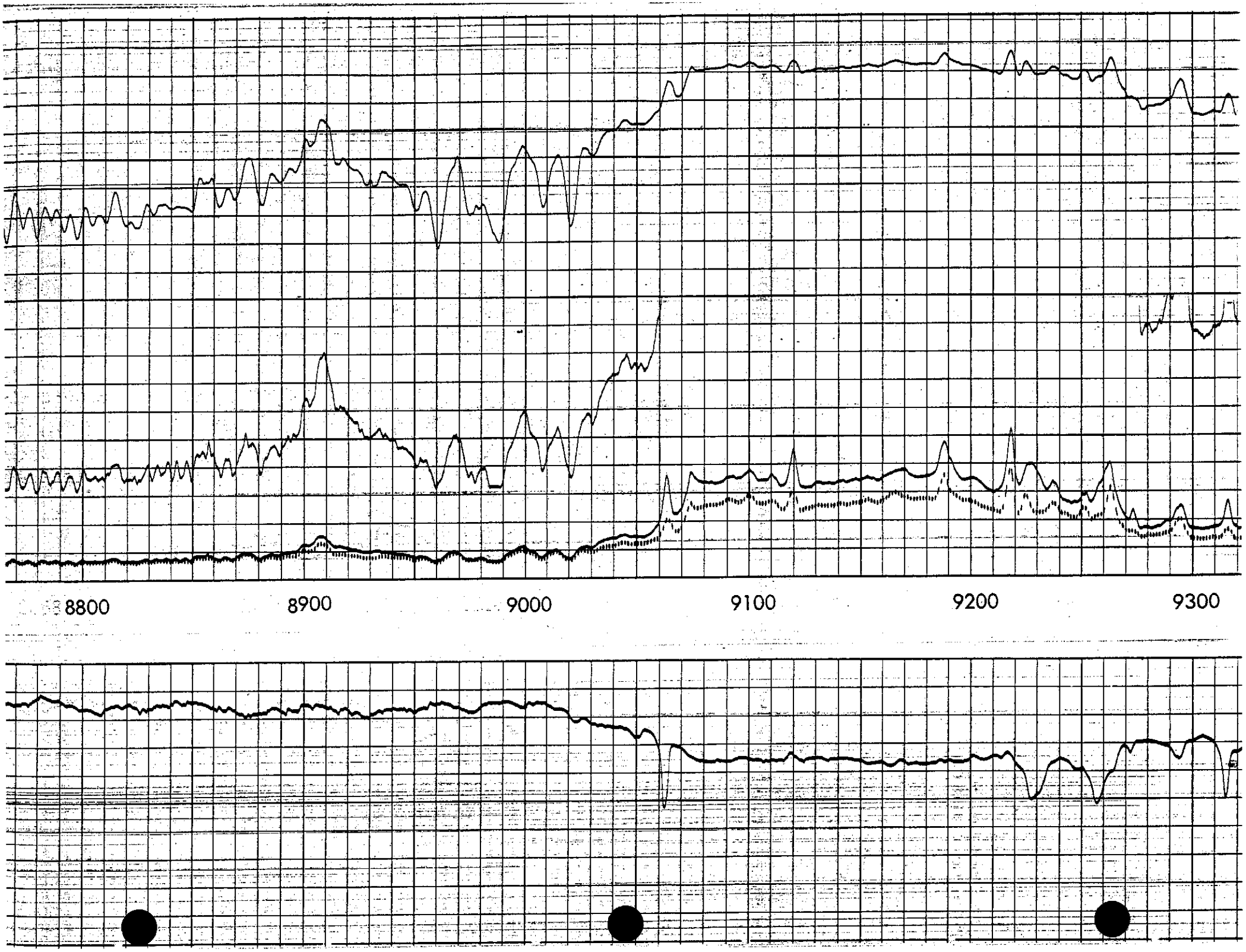
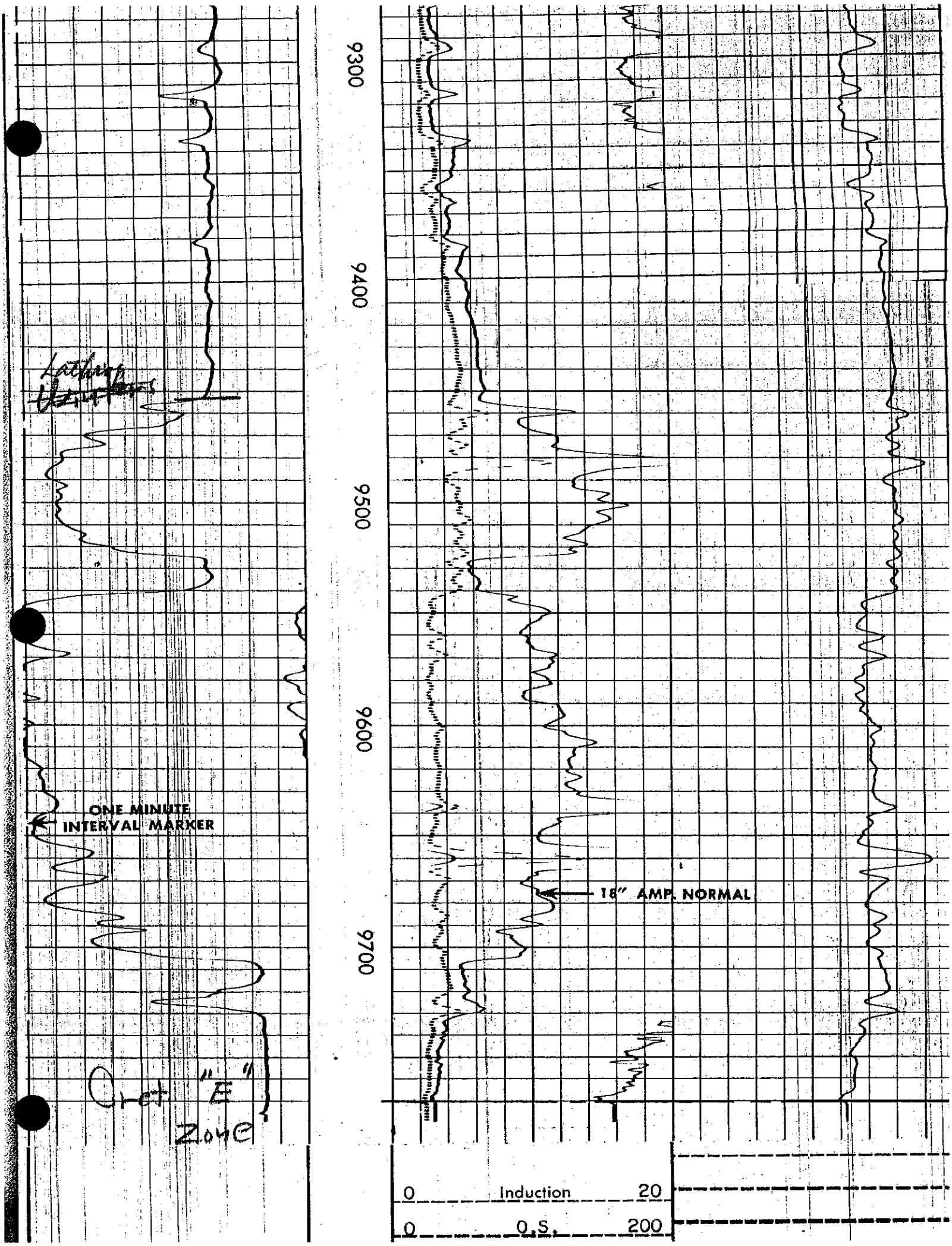
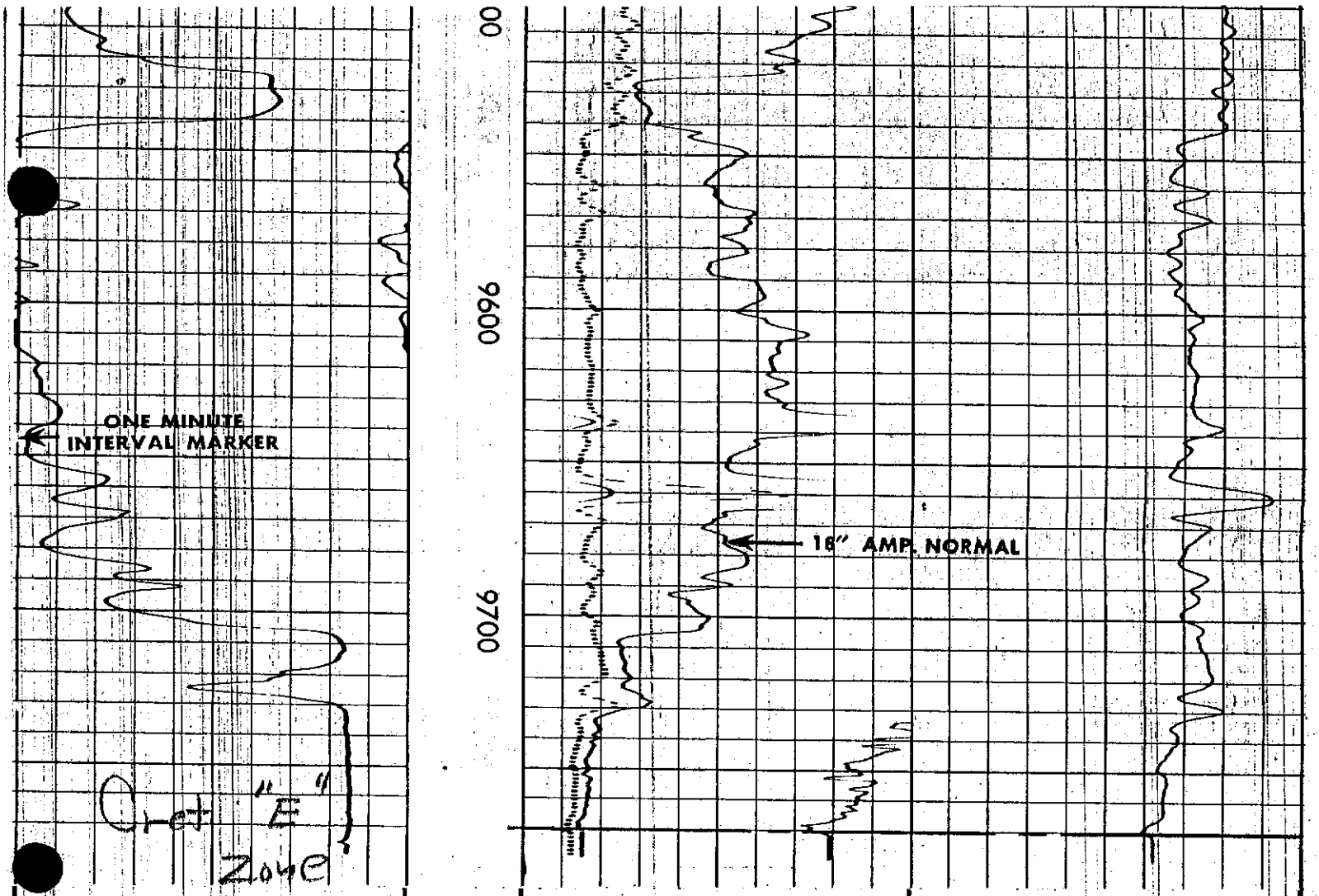
8600
8700


8800
8900
9000
9100
9200
9300


9300
9400
9500
9600
9700
ONE MINUTE INTERVAL MARKER
18" AMP. NORMAL
Lathrop Heights
Oret "E" Zone
0 Induction 20
0 O.S. 200



Rmf .80 at 216 °F.

0 Induction 20

0 O.S. 200

0 18" Normal 20

0 O.S. 200

0 18" Ampl. Normal 4

RESISTIVITY OHMS M²/M

1000 Induction 0

2000 O.S. 1000

10

POTENTIAL MILLIVOLTS

RESISTIVITY OHMS M²/M

CONDUCTIVITY M MHOS/M

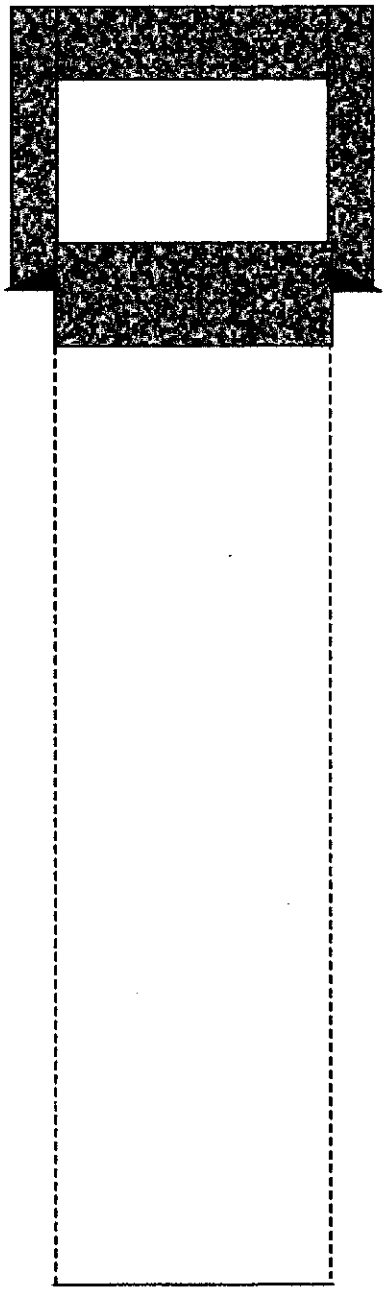
AMERADA PETROLEUM CORPORATION
LUNDQUIST UNIT No. 1
HILMAR AREA
MERCED COUNTY, CALIFORNIA

T.D. LOGGED 9770'
T.D. DRILLER 9775'
T.D. WELEX 9775'

C. F. Braun "C. B. Young" 1

Hilmar Area: C. B. Young #1, API #047-20040
800' S + 900' E f/NW corner, sec. 14, T6S/R10E, MDB&M

KB = 101.5' (GL + 12.5')



Well drilled & logged, then plugged and abandoned in 1-76.

9 5/8" 36# K-55 csg cem @ 945' to surface w/475 sx

Cement plugs @ 0-60'; 865-1,110'. Remaining hole filled with drilling mud.

8 3/4" hole drilled to 9,675'

TD = 9,675'

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

WELL SUMMARY REPORT

SUBMIT IN DUPLICATE

Operator C F BRAUN & COMPANY, Well No. "C. B. Young" 1, API No. 047-20040,

Sec. 14, T. 6S, R. 10E, M.D. B. & M., _____ Field, Merced County.

Location 800' South and 900' East from the Northwest Corner of Sec. 14
(Give surface location from property or section corner, or street center line and/or lambert coordinates)

_____. Elevation of ground above sea level 89 feet.

All depth measurements taken from top of KB (Derrick Floor, Rotary Table or Kelly Bushing) which is 12.5 feet above ground.

In compliance with Sec. 3215, Division 3 of the Public Resources Code, the information given herewith is a complete and correct record of the present condition of the well and all work done thereon, so far as can be determined from all available records.

Date January 13, 1976 Signed W. S. McSwain

Jack West (Engineer or Geologist) Title Engineer

Commenced drilling 12/26/75

Completed drilling 1/13/76

Total depth (1st hole) 9676' (2nd) _____ (3rd) _____

Present effective depth Plugged 1110'-865'

Junk None 60'-16'

GEOLOGICAL MARKERS	DEPTH
Top Tracy Sand	8418'

Formation and age at total depth Shale - Eocene

Commenced producing Abn. (Date) Flowing/gas lift/pumping (Cross out unnecessary words)

Name of producing zone None

	Clean Oil bbl. per day	Gravity Clean Oil	Per Cent Water including emulsion	Gas Mcf. per day	Tubing Pressure	Casing Pressure
Initial production	Never	produced.				
Production after 30 days						

CASING RECORD (Present Hole)

of Casing (A. P. I.)	Depth of Shoe	Top of Casing	Weight of Casing	Grade and Type of Casing	New or Second Hand	Size of Hole Drilled	Numbers of Sacks or Cubic Feet of Cement	Depth of Cementing if through perforations
9-5/8"	945	0	36	K	N	13-3/4	750 ft^3	

PERFORATED CASING
(Size, top, bottom, perforated intervals, size and spacing of perforation and method.)

None

Was the well directionally drilled? No If yes, show coordinates at total depth _____

Electrical log depths 9672' Other surveys Dipmeter, Mud Log

100

ATTACH ONE COPY OF EACH LOG AND SURVEY

WELL HISTORY

C F BRAUN & COMPANY
Well No.: "C. B. Young" 1

API No. 047-20040
Sec. 14, T. 6S, R. 10E, M. D. B. & M.
Merced County, Calif.

December, 1975

24		Hunnicutt & Camp Drilling Company moved in Rig No. 2 and rigged up.
25		Shut down for Christmas.
26		Completed rigging up.
		Spudded in at 12:00 noon with 13-3/4" bit and drilled ahead.
	945'	Sand and clay. Survey at 945' 0°-45'
27		Ran 24 joints, including one cut off joint, of 9-5/8" 36# K casing equipped with a guide shoe and an insert fill-up valve on top of shoe joint. Cemented around shoe at 945' with 275 sacks of Class G cement premixed with 8% gel and treated with 3% $CaCl_2$, followed by 200 sacks of neat Class G treated with 3% $CaCl_2$. Had good cement returns at surface. Cement in place at 3:30 a.m.
		Landed casing and installed casing head. Tested weld with 2000 psi.
		Installed and tested BOP equipment. Division of Oil and Gas declined to witness test.
		Drilled out plug, insert, cement below and shoe with 8-3/4" bit and drilled ahead.
	1,560'	Sand and clay.
28	3,305'	Sand and clay. Survey at 1,846' 0°-30' 3,225' 0°-45'
29	4,880'	Sand and clay. Survey at 4,495' 0°-45'
30	5,940'	Sand and clay. Survey at 5,480' 0°-30'
31	6,790'	Sand and clay. Survey at 6,403' 0°-30'

WELL HISTORY

C F BRAUN & COMPANY
Well No.: "C. B. Young" 1

Sec. 14, T. 6S, R. 10E, M. D. B. & M.
Merced County, Calif.

January, 1976

1	7,239'	Sand and clay.			
			Survey at	6,855'	0°-30'
2	7,601'	Sand and clay.			
			Survey at	7,253'	1°-0'
				7,527'	0°-45'
3	7,859'	Sand and shale.			
4	8,134'	Shale.			
			Survey at	7,945'	0°-45'
5	8,526'	Shale and sand.			
6	8,814'	Shale.			
			Survey at	8,595'	1°-30'
7	8,976'	Shale.			
8	9,162'	Shale.			
			Survey at	9,162'	1°-15'
9	9,333'	Shale.			
10	9,465'	Shale.			

Pulled out to find wash out.

11 Drilled ahead with 8-3/4" bit.

9,676' Shale.

Conditioned hole for logs.

12 Ran Welex Induction Electric Log from 945' to 9,672'.

Ran Welex Dipmeter from 7,500' to 9,676'.

Laid down drill collars and drill pipe.

13 Plug No. 1 Hung drill pipe at 1,110' and pumped in 120 sacks of Class G treated with 2% $CaCl_2$. Cement in place at 12:30 a.m.

Located top of Plug No. 1 at 865' at 3:30 a.m. Division of Oil and Gas declined to witness top of plug.

13 (contd) Plug No. 2 Hung drill pipe at 60' and pumped in 50 sacks of Class G cement, filling surface casing to surface with cement.

Cut off surface casing 4' below ground level and welded on steel plate.

Hole abandoned in this condition.

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF WELL ABANDONMENT

Coalinga, California

March 9, 1976

Mr. L. P. Sacre, Agent
C. F. BRAUN & CO.
1000 S. Fremont Ave.
Alhambra CA 91802

DEAR SIR:

Your report of abandonment of Well No. "C.B. Young" 1 (047-20040)

Sec. 14, T. 5S, R 10E, M.D.B. & M., ---------- field,

Merced County, dated 1-13-76, received 1-30-76,

has been examined in conjunction with records filed in this office.

A review of the reports and records shows that the requirements of this Division, which are based on all information filed with it, have been fulfilled.

Blanket Bond
TMC:fd
cc: W. S. McBurnie
Conservation Committee

HAROLD W. BERNOLF
State Oil and Gas Supervisor

By F. Z. Hill
Deputy Supervisor

OG159 (2-75-GSR 1-8M)

Welex

2" = 100'

INDUCTION - ELECTRIC LOG

COMPANY C.F. BRAUN & CO.
WELL "C.B. YOUNG" NO. 1
FIELD HILLMAR AREA
County MERCED State CALIF.

COMPANY C.F. BRAUN & COMPANY
WELL "C.B. YOUNG" NO. 1 (047-20040)
FIELD HILLMAR AREA
COUNTY MERCED STATE CALIFORNIA

Location: 800' SOUTH & 900' EAST FROM THE NORTHWEST CORNER OF SEC. 14 (MDB & M)

Sec. 14 Twp. 6S Rge. 10E

Other Services: DIP LOG

Permanent Datum G.L. Elev. 89
Log Measured From K.B. or 12.5 Ft. Above Perm. Datum
Drilling Measured From K.B.

Elev.: K.B. 101.5
D.F. -
G.L. 89

Date	1-12-76			
Run No.	ONE			
Depth—Driller	9676			
Depth—Welex	9677			
Btm. Log Inter.	9672			
Top Log Inter.	945			
Casing—Driller	9 5/8@ 945	@	@	@
Casing—Welex	945			
Bit Size	8 3/4			
Type Fluid in Hole	LIGNO. SULF. CLAY BASE			
Dens. I Visc.	79 I 42	I	I	I
pH I Fluid Loss	10.5 I 5.3 ml	I ml	I ml	I ml
Source of Sample	CIRCULATED			
R_m @ Meas. Temp.	2.64@ 80 °F	@ °F	@ °F	@ °F
R_{mf} @ Meas. Temp.	2.52@ 68 °F	@ °F	@ °F	@ °F
R_{mc} @ Meas. Temp.	2.82@ 66 °F	@ °F	@ °F	@ °F
Source R_{mf} R_{mc}	MEASURED	I	I	I
R_m @ BHT	1.04@ 202°F	@ °F	@ °F	@ °F
Time Since Circ.	5 HRS.			
Max. Rec. Temp.	202°F@ T.D.	°F@	°F@	°F@
Equip. I Location	8586 IWDLND	I	I	I
Recorded By	MR. KENNEDY			
Witnessed By	MR. McBURNIE			

Fold Here

Scale Up Hole | Depth | SCALE CHANGES | Type Log

Change in Mud Type or Additional Samples
Date | Sample No. | Depth—Driller

(047-20060)

CALIFORNIA

Other Services:

DIP LOG

Elev.: K.B. 101.5
D.F. -
G.L. 89

Fold Here

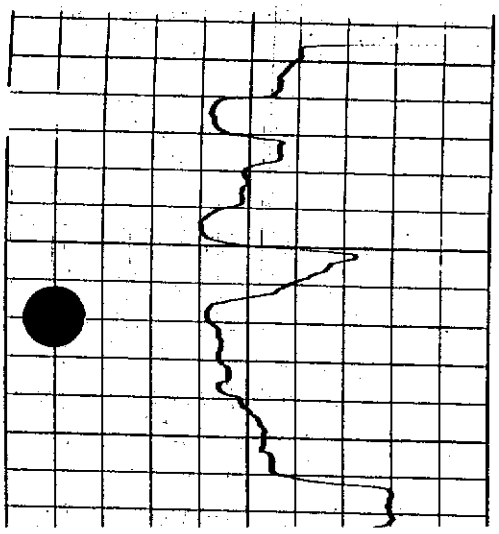
Change in Mud Type or Additional Samples						
Date	Sample No.	1	1	Type Log	Depth	SCALE CHANGES Scale Up Hole / Scale Down Hole
Depth—Driller						
Type Fluid in Hole						
Dens.	Visc.	1	1			
ph	Fluid Loss	1 ml	1			
Source of Sample						
R_m @ Meas. Temp.		@ °F	@ °F	Run No.	Tool Type and No.	EQUIPMENT DATA Pad Type / Top Position
R_{mf} @ Meas. Temp.		@ °F	@ °F	ONE	IEL 13552	FREE
R_{mc} @ Meas. Temp.		@ °F	@ °F			
Source: R_{mf}	R_{mc}	1	1			
R_m @ BHT		1.04 @ 202°F	@ °F			
R_{mf} BHT		0.84 @ 202°F	@ °F			
R_{mc} BHT		0.92 @ 202°F	@ °F			

Service Ticket No. 120329 Remarks:

Welex does not guarantee the accuracy of any interpretation of log data, conversion of log data to physical rock parameters, or recommendations which may [illegible] personnel or which may appear on the log or in any other form. Any user of such data, interpretations, conversions, or recommendations agrees that Welex is not [illegible] where due to gross negligence or willful misconduct, for any loss, damages, or expenses resulting from the use thereof.

2" = 100'

POTENTIAL MILLIVOLTS	RESISTIVITY OHMS M²/M	CONDUCTIVITY MMHOS/M
← 10 → +	0 18" Normal 20	1000 Elevation 0
Rmf 2.52 at 68 °F.	0 0.S. 200	
	0 18" AMPL. NORMAL 4	
	0 Induction 20	RESISTIVITY OHMS M²/M
	0 0.S. 200	



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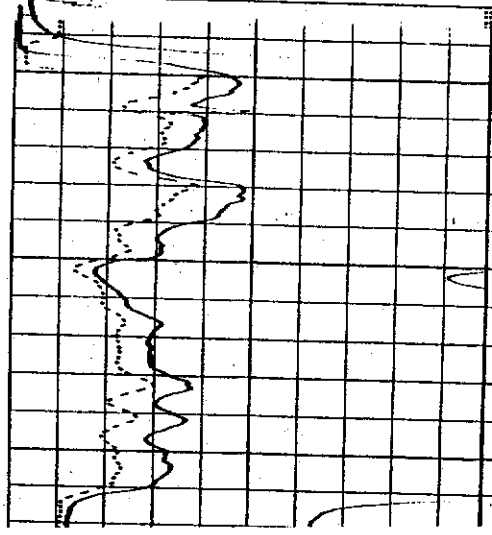
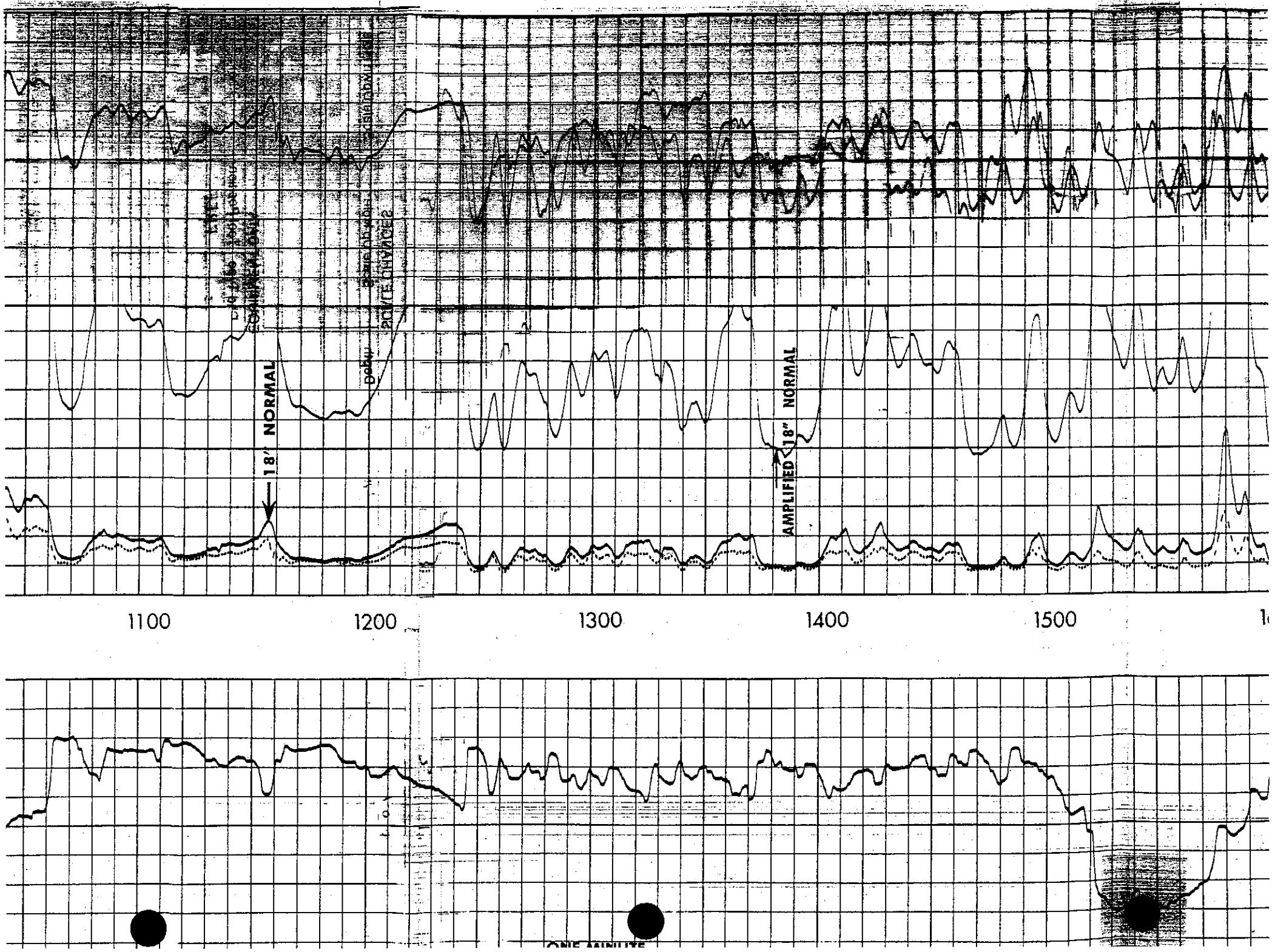
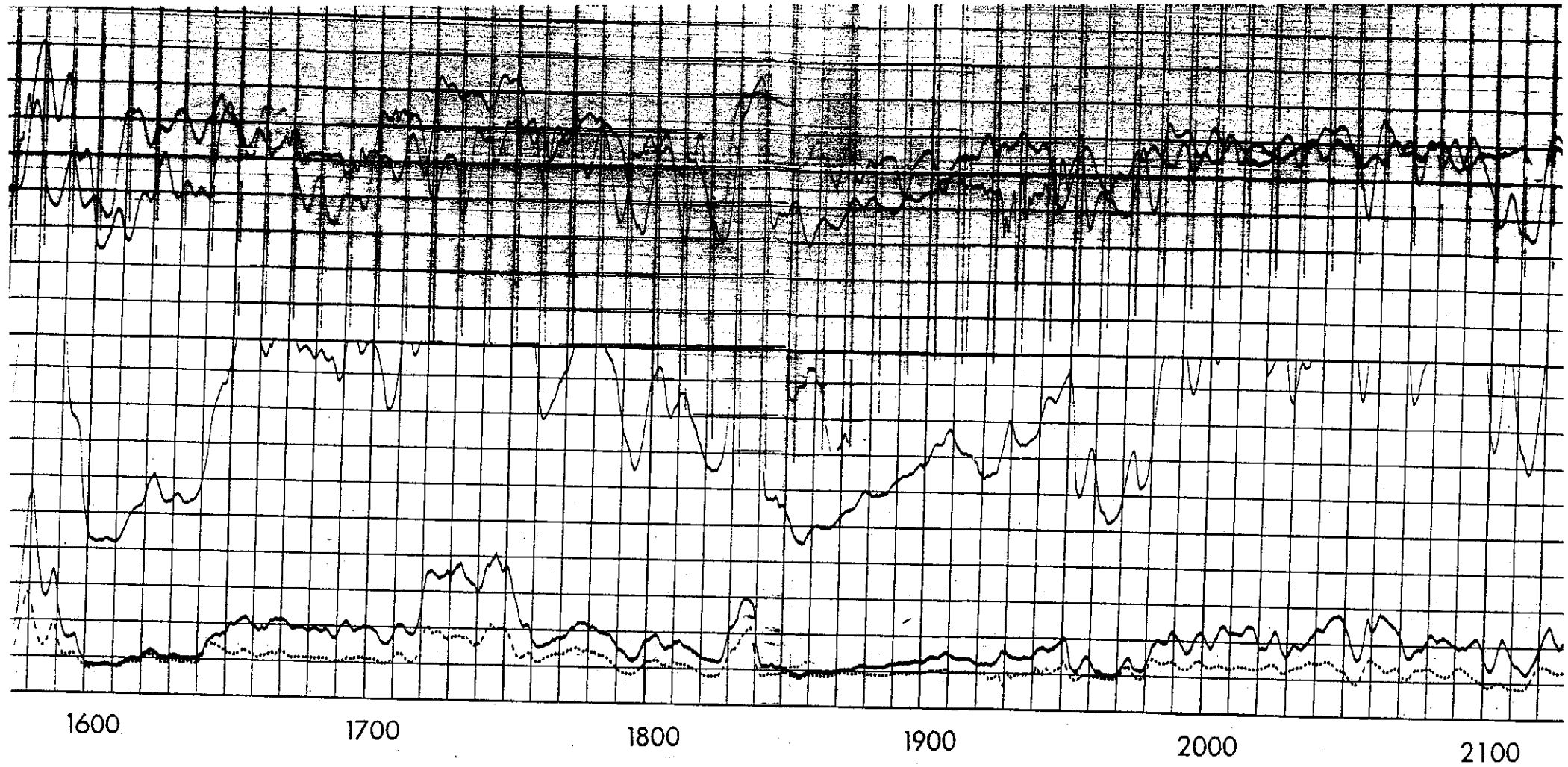
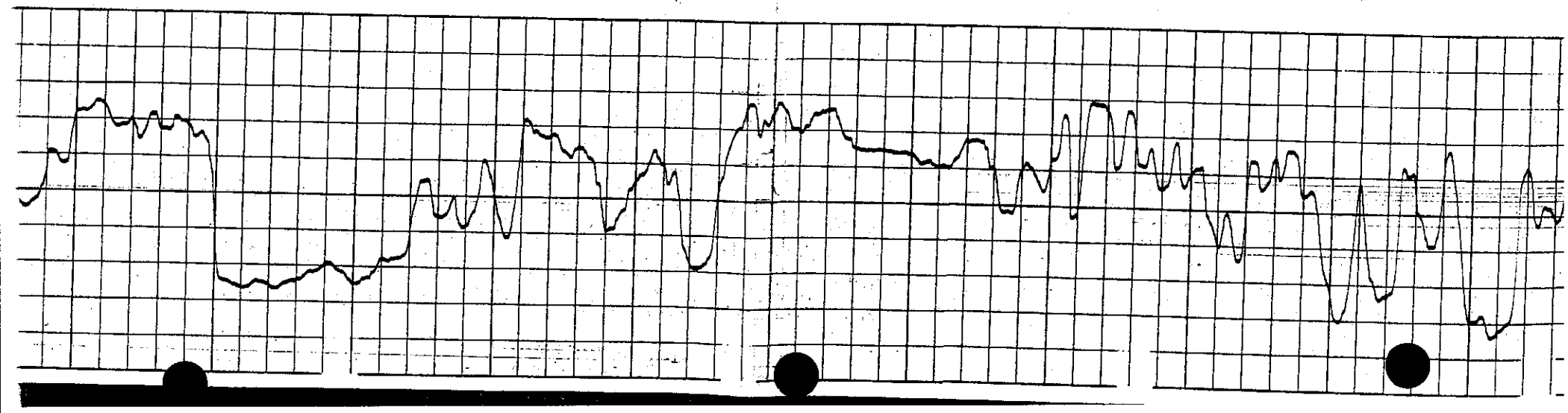
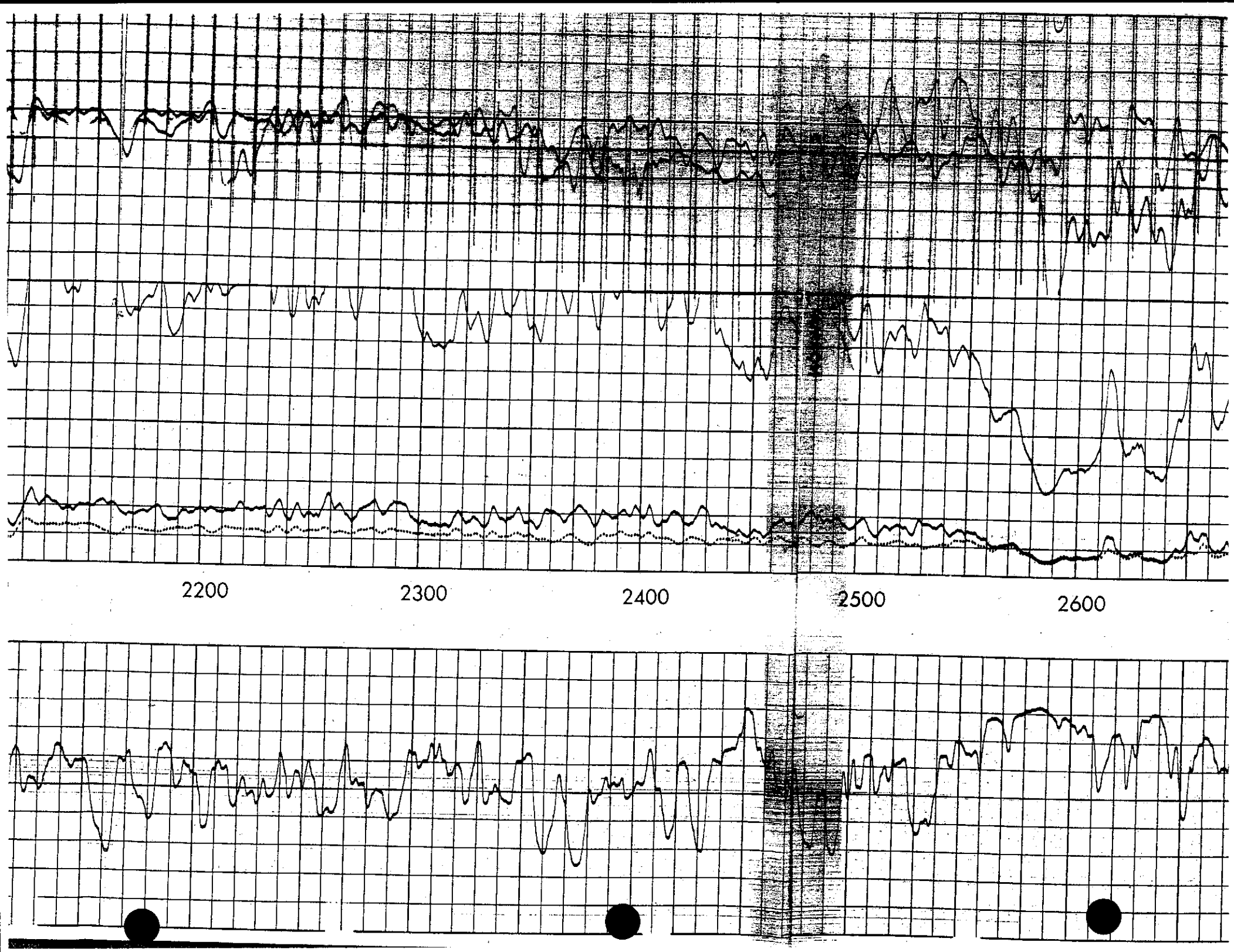
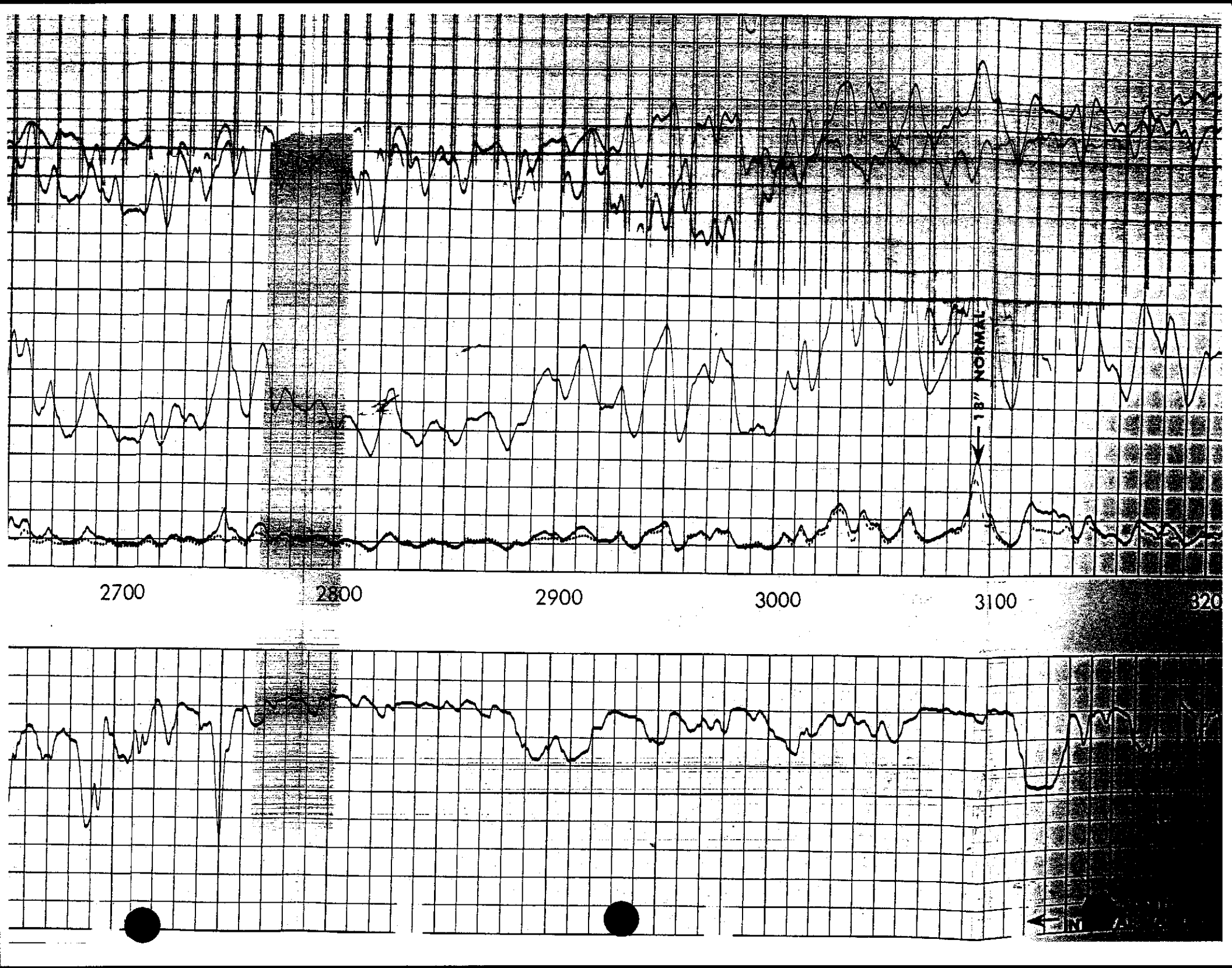


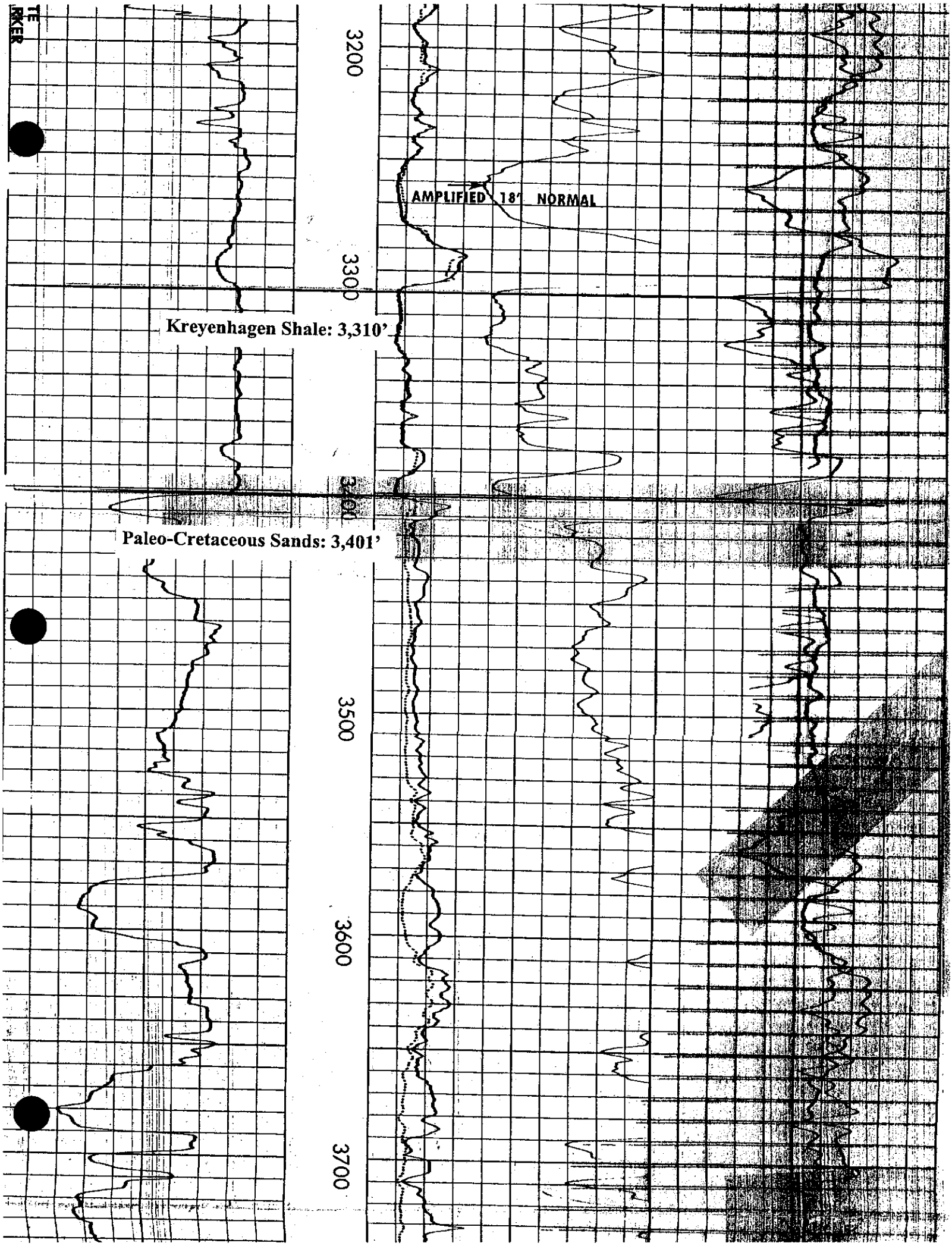

18" NORMAL
AMPLIFIED 18" NORMAL
1100
1200
1300
1400
1500

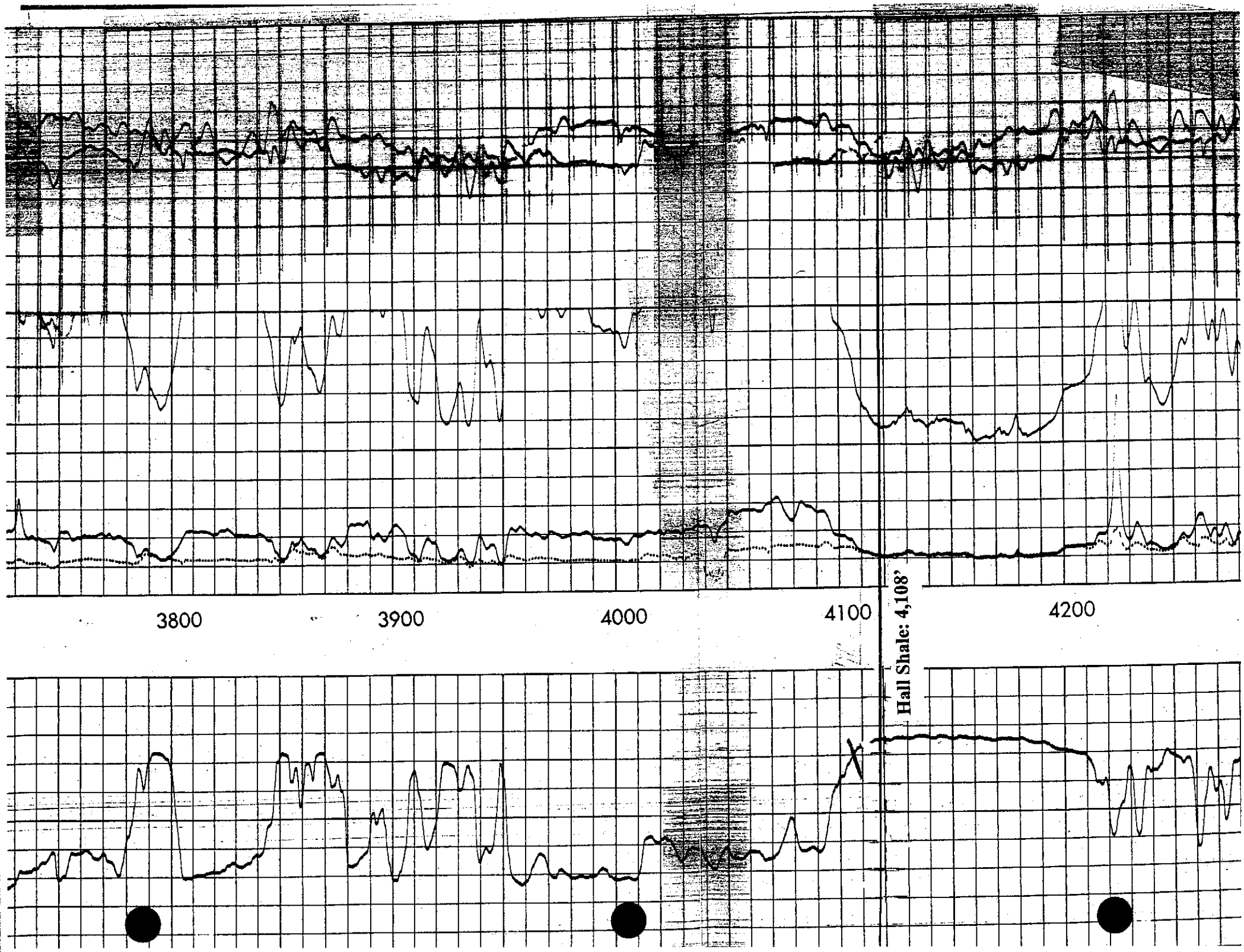

1600
1700
1800
1900
2000
2100

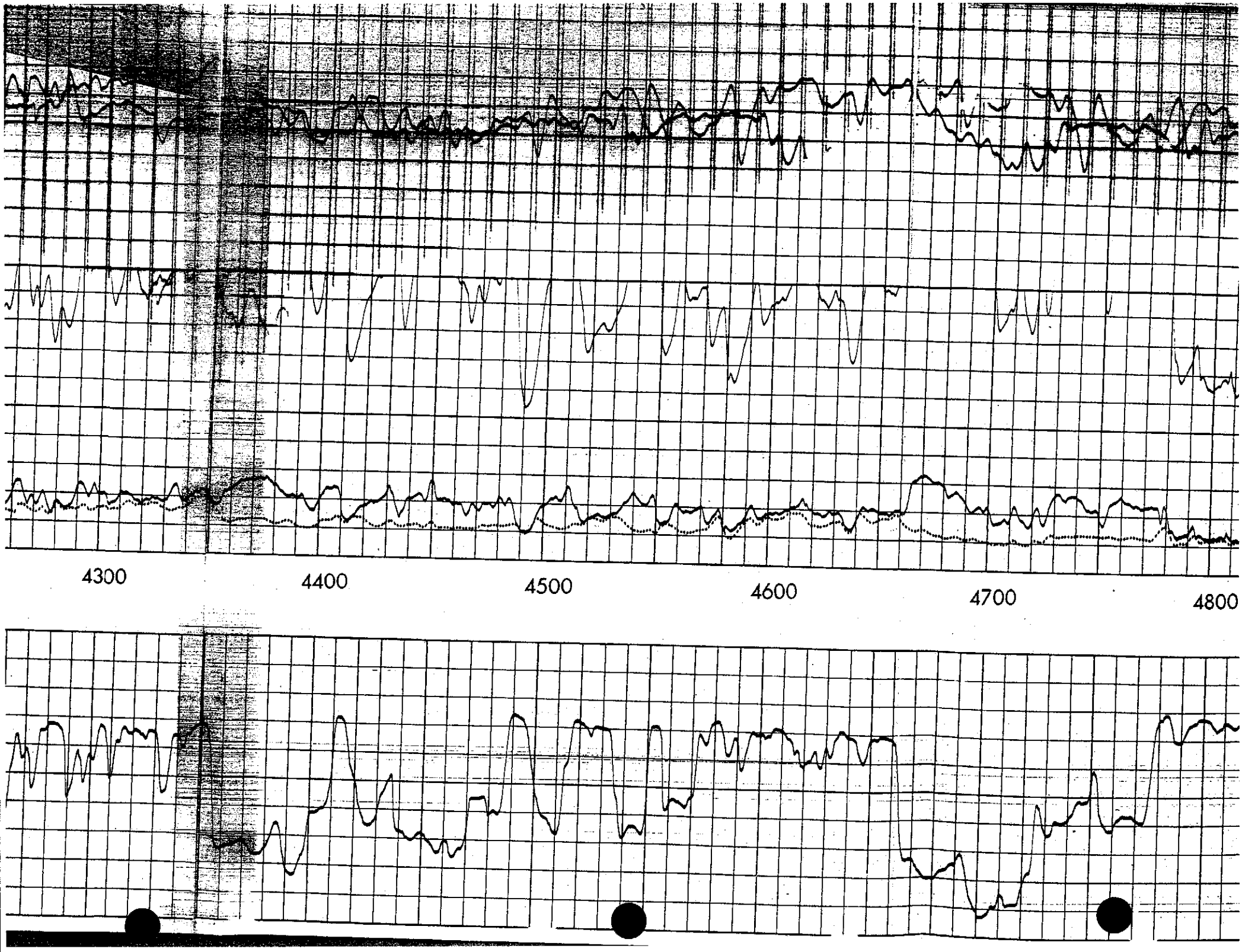



2200
2300
2400
2500
2600


1.8" NORMAL
2700
2800
2900
3000
3100
320


TE
RKER
3200
3300
3400
3500
3600
3700
AMPLIFIED 18' NORMAL
Kreyenhagen Shale: 3,310'
Paleo-Cretaceous Sands: 3,401'


3800
3900
4000
4100
4200
Hall Shale: 4,108'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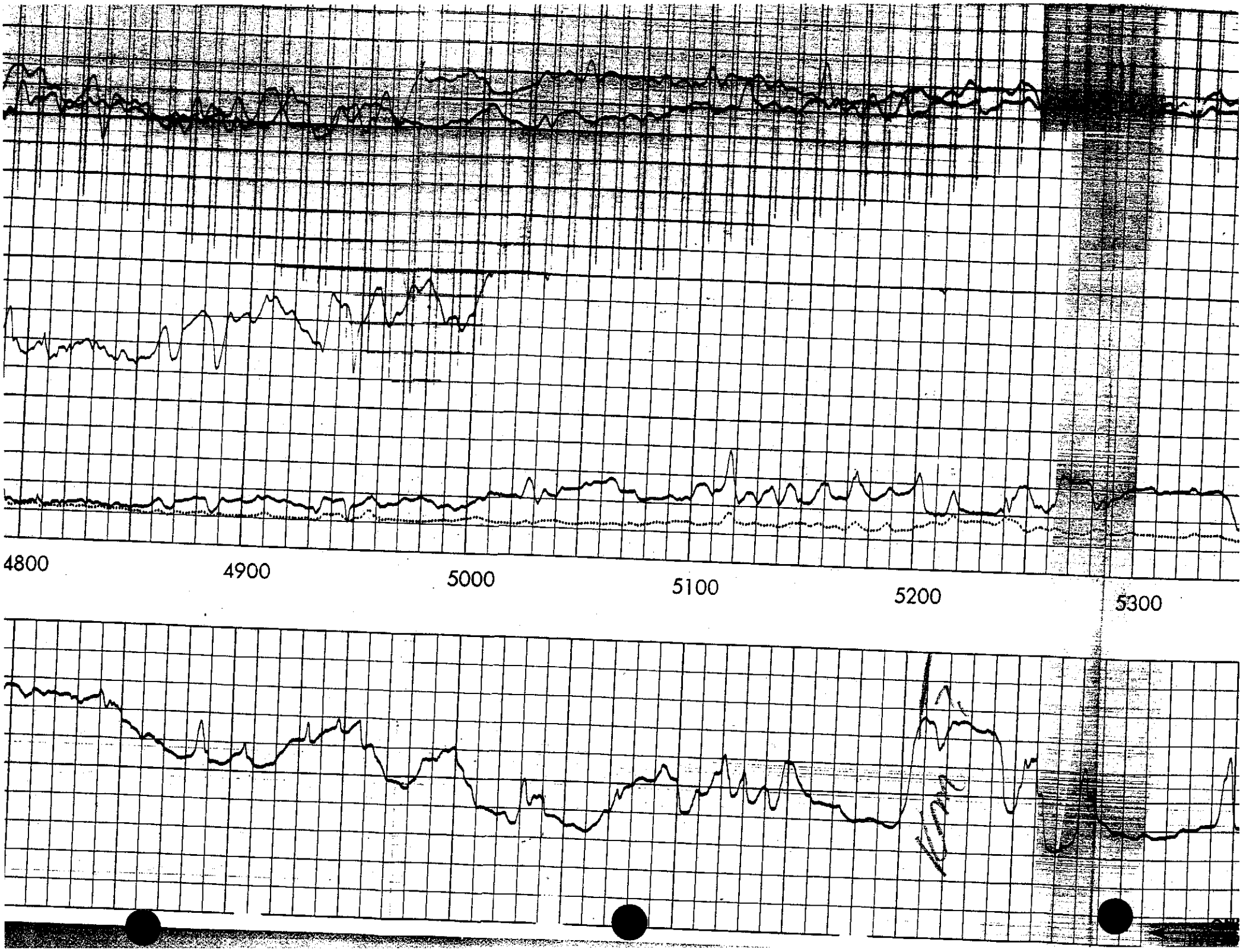
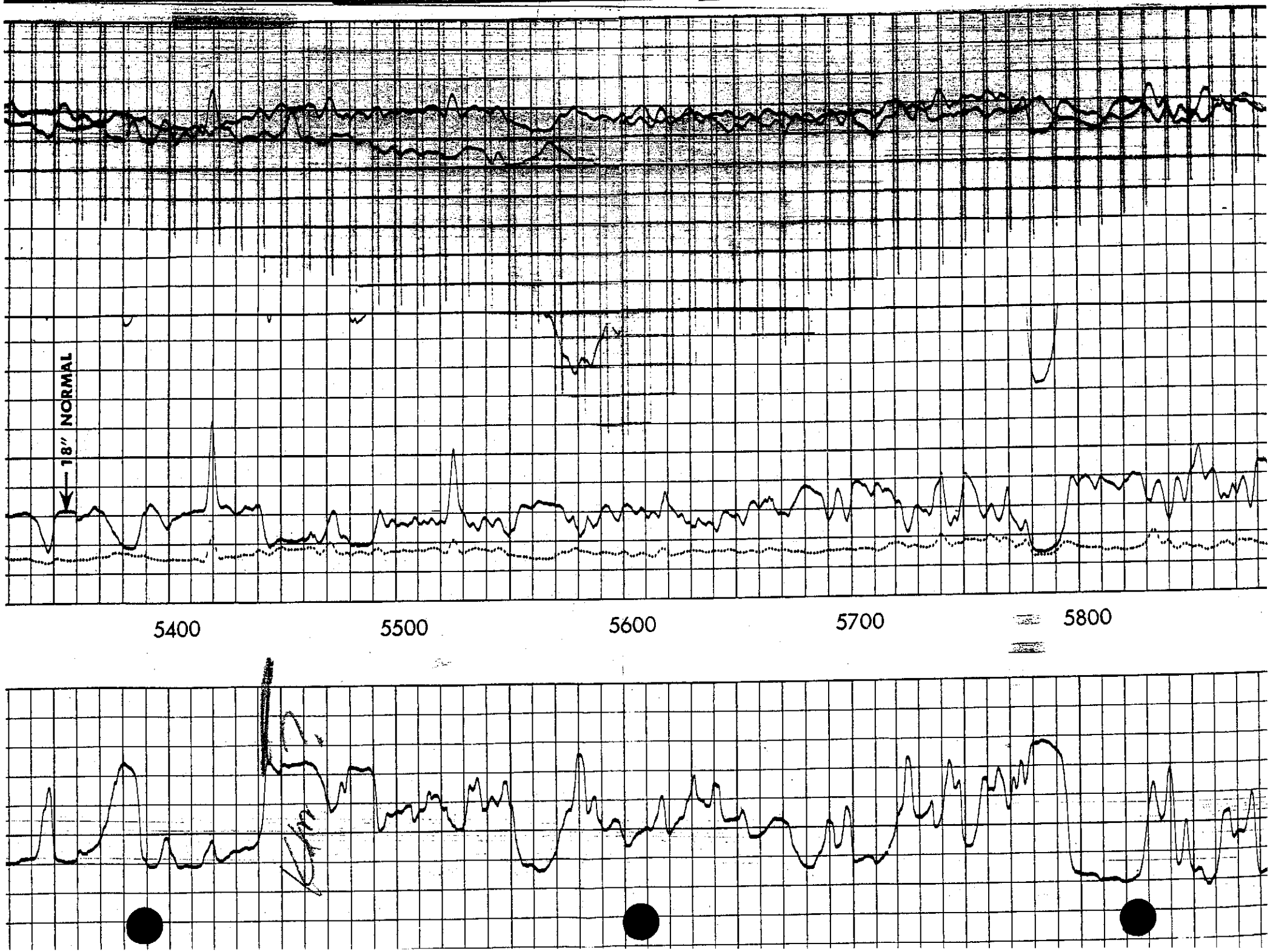
4400
4500
4600
4700
4800


4800
4900
5000
5100
5200
5300


18" NORMAL
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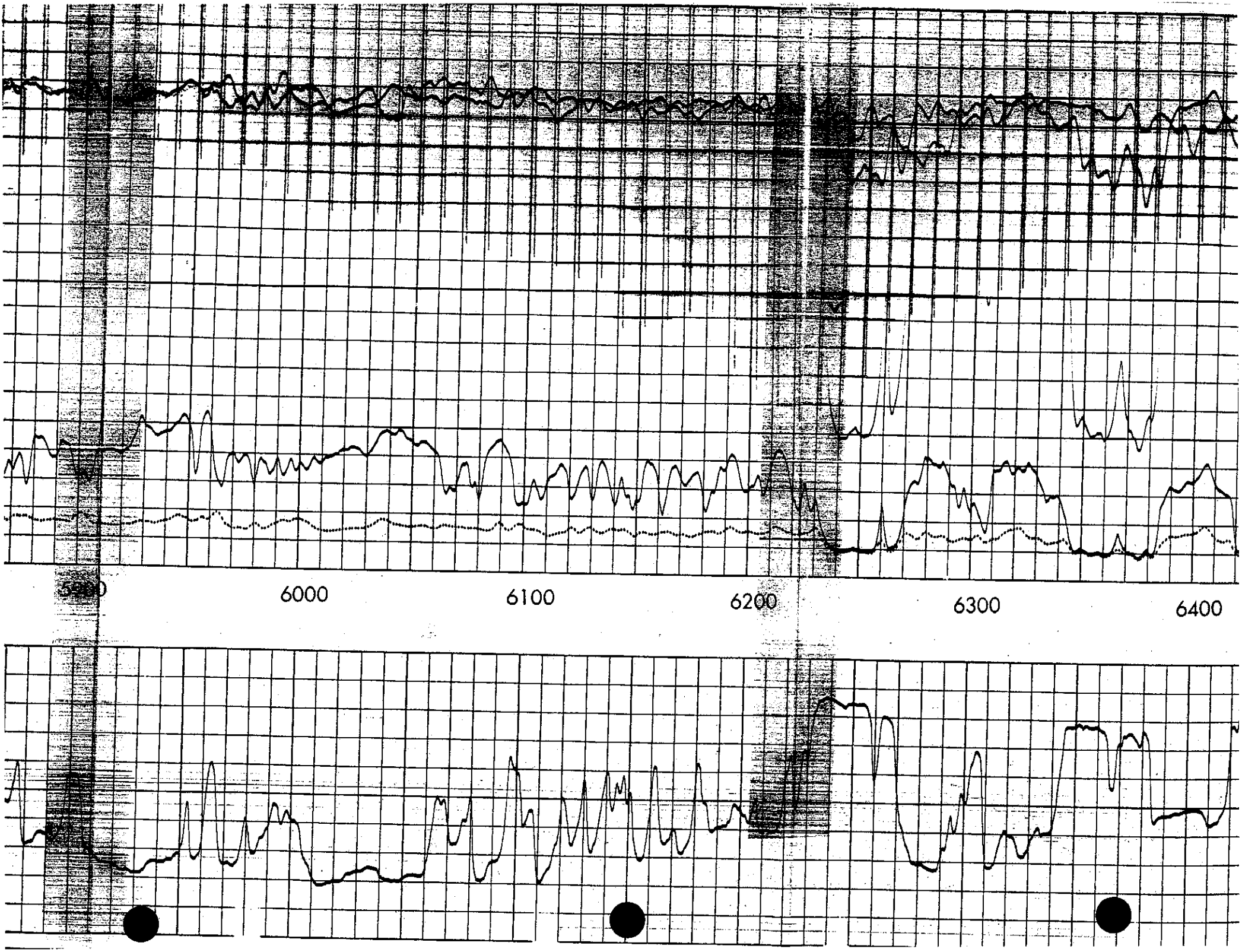
5500
5600
5700
5800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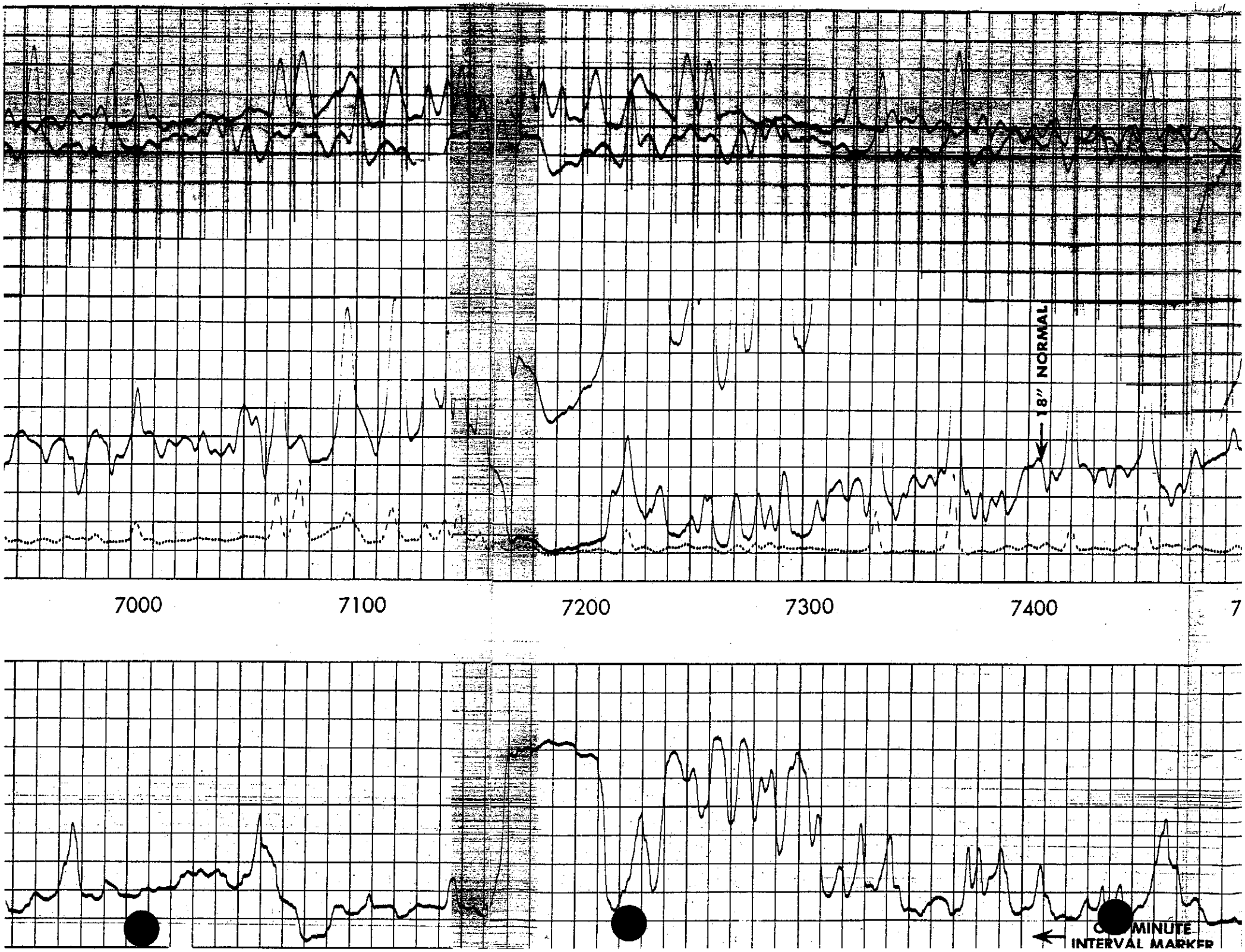
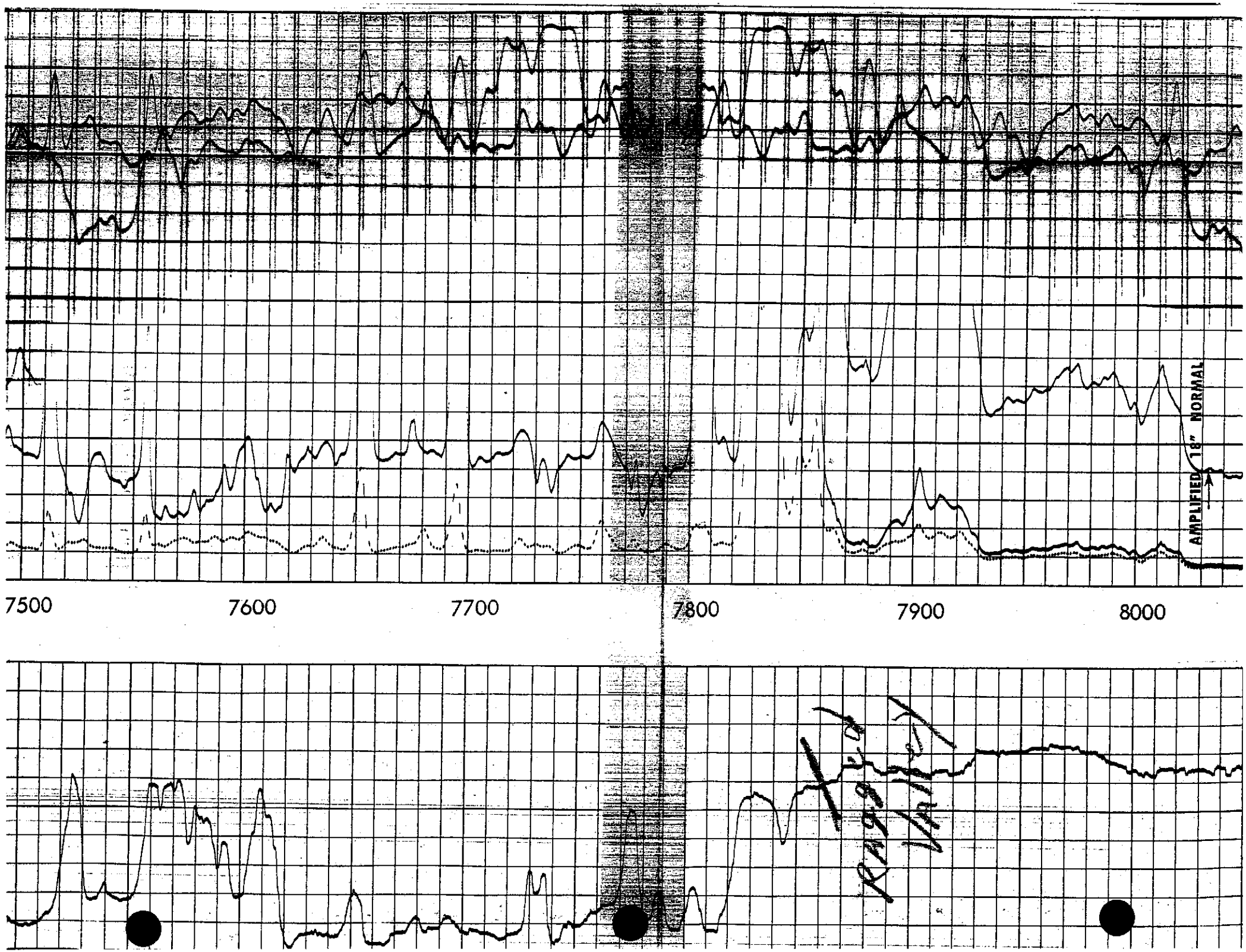
6100
6200
6300
6400

0
6500
6600
6700
6800
6900


18" NORMAL
7000
7100
7200
7300
7400
7
MINUTE
INTERVAL MARKER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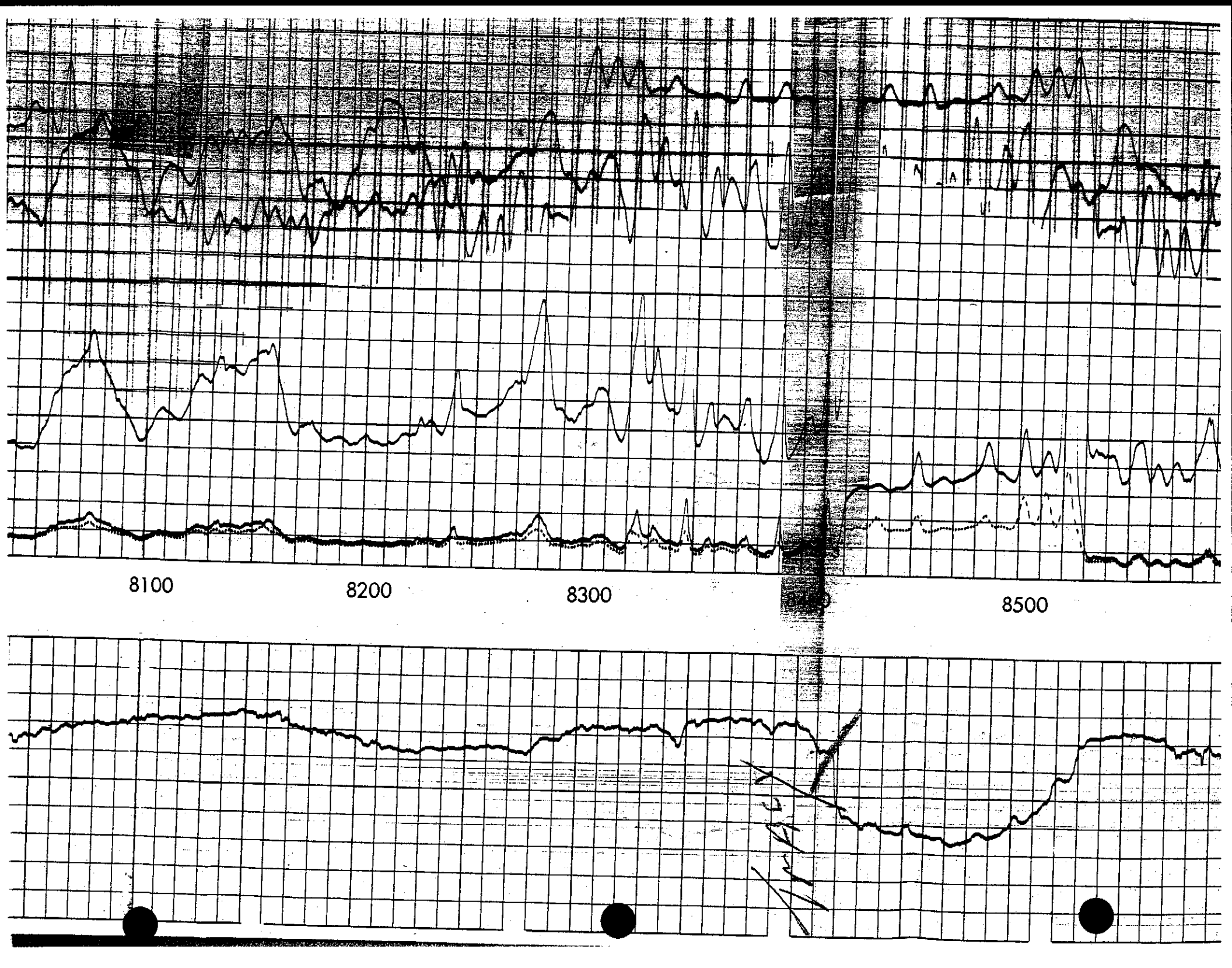
7600
7700
7800
7900
8000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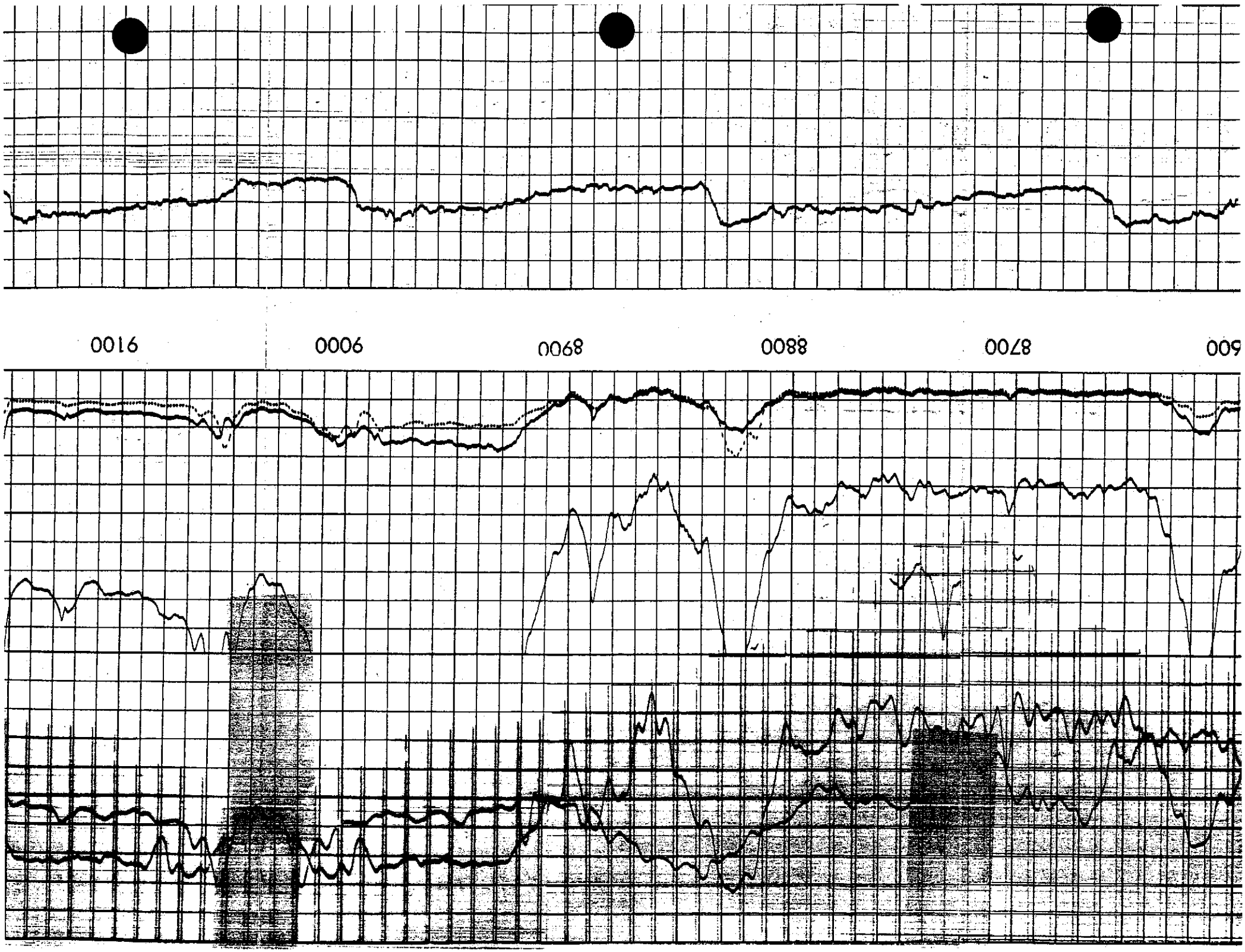
8200
8300
8500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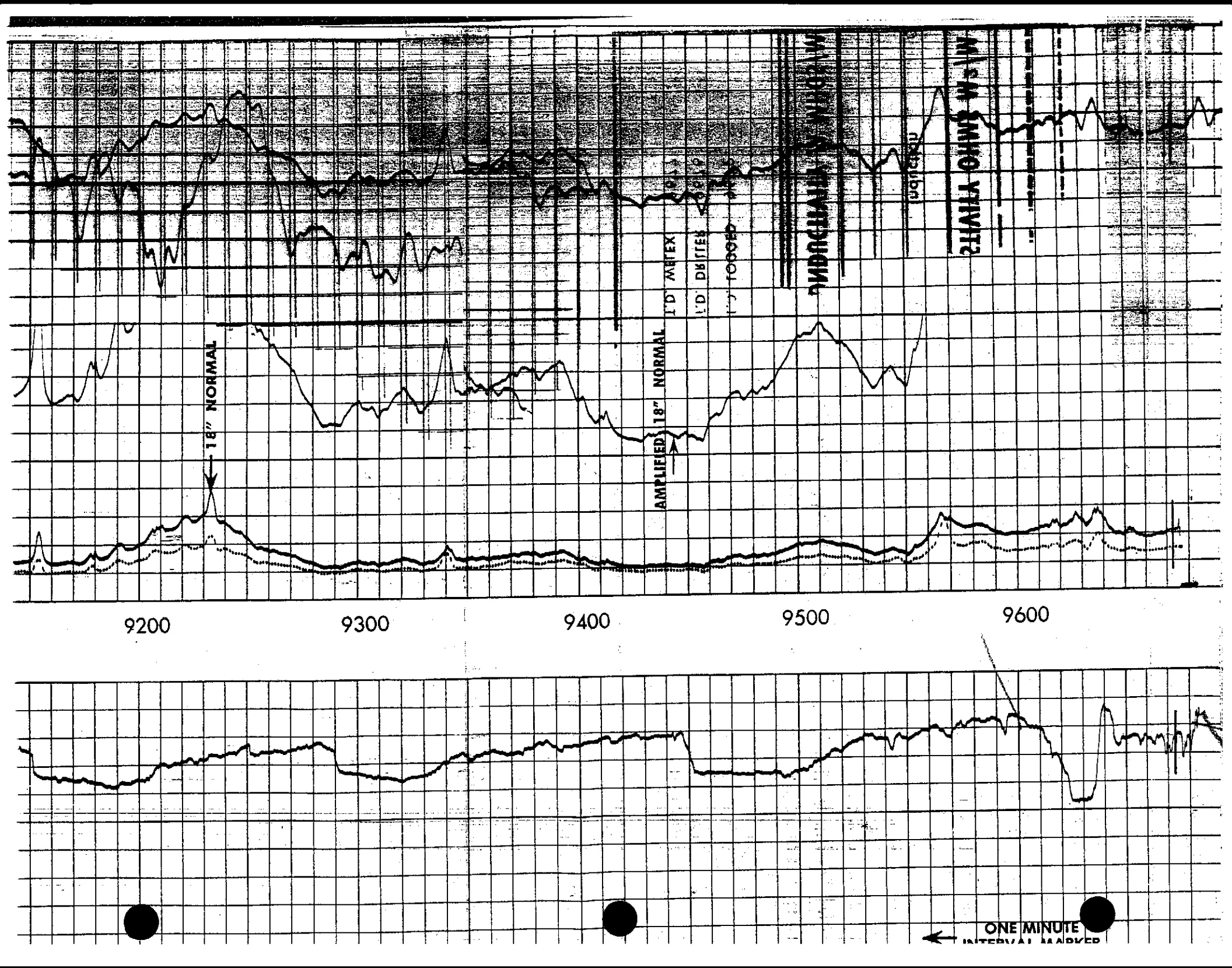
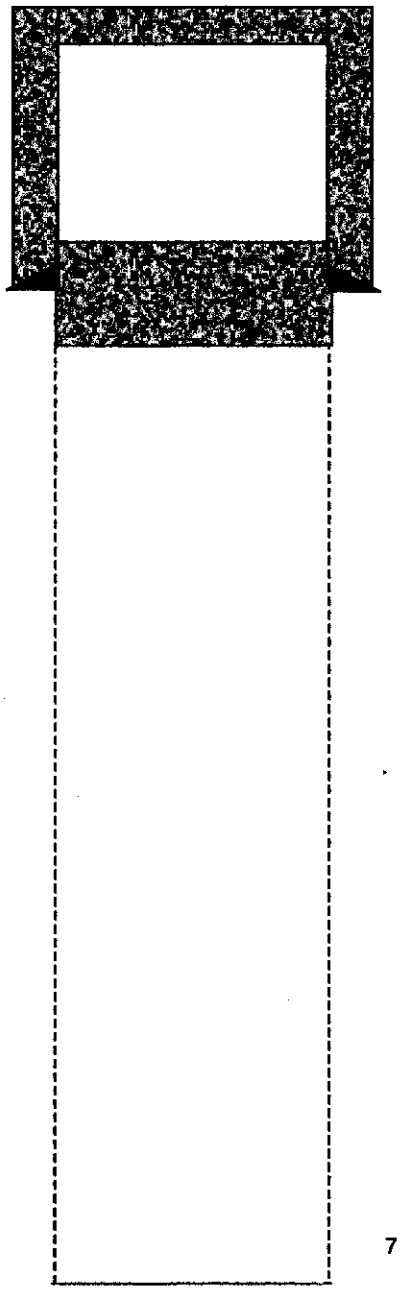
9000
8900
8800
8700
600


18" NORMAL
AMPLIFIED 18" NORMAL
9200
9300
9400
9500
9600
ONE MINUTE

Hilliard "Deuss" 1

Hilmar Area: Hilliard "Deus" #1
1,980' W + 660' N f/SE corner, sec. 4, T6S/R10E, MDB&M

KB = 113.65' (GL + 13.5')



Well drilled & logged, then plugged and abandoned in 5-77.

8 5/8" 24# csg cem @ 812' to surface w/360 sx; TTOC @ 60' in 12 1/4" annulus.

Cement plugs @ 0-60'; 708'-860'. Remaining hole filled with drilling mud.

7 7/8" hole drilled to 8,013'

TD = 8,013'

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

RECEIVED
MAY 13 1977
DIVISION OF OIL & GAS
SOLANGA

WELL SUMMARY REPORT

SUBMIT IN DUPLICATE

Operator Hilliard Oil & Gas Inc., Well No. DEUS #1, API No. 047-20054,

Sec. 4, T. 6S, R. 10E MD B. & M., ~~Hilmer~~ Field, Merced County.

Location 1980' West and 660' North of S.E. Sec corner Sec. 4
(Give surface location from property or section corner, or street center line and/or lambert coordinates)

Elevation of ground above sea level 100.15 feet.

All depth measurements taken from top of Kelly Bushing which is 13.5 feet above ground.
(Derrick Floor, Rotary Table or Kelly Bushing)

In compliance with Sec. 3215, Division 3 of the Public Resources Code, the information given herewith is a complete and correct record of the present condition of the well and all work done thereon, so far as can be determined from all available records.

Date May 9, 1977 Signed V. A. Isaacs

V.A. Isaacs (Engineer or Geologist) Title Agent

Commenced drilling April 26, 1977

Completed drilling May 5, 1977

Total depth (1st hole) 8013 (2nd) (3rd)

Present effective depth Plugged and Abandoned

Junk -- Plug from 860' - 708'
60' - surface

GEOLOGICAL MARKERS	DEPTH
Tracy Sand	7987

Formation and age at total depth Cretaceous

Commenced producing -- (Date) Flowing/gas lift/pumping (Cross out unnecessary words)

Name of producing zone

	Clean Oil bbl. per day	Gravity Clean Oil	Per Cent Water including emulsion	Gas Mcf. per day	Tubing Pressure	Casing Pres
Initial production	Exploratory hole. - Dry.					
Production after 30 days						

CASING RECORD (Present Hole)

Size of Casing (A. P. I.)	Depth of Shoe	Top of Casing	Weight of Casing	Grade and Type of Casing	New or Second Hand	Size of Hole Drilled	Numbers of Sacks or Cubic Feet of Cement	Depth of Cemen if through perforations
8 5/8	812'	Surface	24#	J55 ERW	New	12¼	360 sx	

PERFORATED CASING
(Size, top, bottom, perforated intervals, size and spacing of perforation and method.)

Was the well directionally drilled? No If yes, show coordinates at total depth

Electrical log depths 813 -7885 Other surveys None

SUBMIT IN DUPLICATE

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

History of Oil or Gas Well

Operator Hilliard Oil & Gas Inc. Field or County Hilmar Area - Merced Co.
Well name and No. DEUS #1, Sec. 4, T 6S, R 10E, M.D. & M.
A.P.I. well No. 047-20054 Name V. A. Isaacs (Person submitting report) Title Agent (President, Secretary or Agent)
Date April 9, 1977

Signature V. A. Isaacs

#2 Fairlane Rd., Bakersfield, Calif.93309 (Address) (805) 832-2342 (Telephone Number)

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests and initial production data.

Date	
4/19	Prepared Location cemented 40' 16" conductor w/ 4yards concrete. Dug rat hole and mouse hole.
4/25	Moved in Hunnicut & Camp Rig 4 K.B. to G.L. 13.5'
4/26	Rigged up and spudded 12¼" hole at 11 p.m.
4/27	Drilled 12¼" hole to 812'. Sand & clay. Deviation at 812' ¼° Cemented 8 5/8" casing at 812'. Ran 17 joints, 815', of 8 5/8" 24# J-55 new ERW casing equipped with guide shoe on bottom, cementing valve 40' above bottom and centralizers, 10', 40', and 120' above bottom. Baker-Locked bottom 3 collars. Cemented casing with 260 sax Class G cement mixed with 4% gel and 3% CaCl2 followed by 100 sax Class G cement mixed w/ 3% CaCl2. Used one top plug. Cement in place at 12:53 p.m. Had good cement returns to surface.
4/28	Installed and tested Class IV B.O.P.E. and tested to 1500 psi. for 10 min B.O.P.E. inspected and approved by D.O.G. inspector, V.E. Van Meter. Ran 7 7/8" bit and located top cement at 753' D.O.C. and conditioned mud 70 pcf, 42 s.s. viscosity. Drilled 7 7/8 hole to 2773' Sand and clay Deviation @ 916' - ¼°, @ 1510' - ¼°
4/29	Drilled 7 7/8" hole to 4363'; sand, clay and shale. Mud 72 pcf - viscosity 43 ss. Deviation @ 3030' 1°, @ 4363' - ½°
4/30	Drilled 7 7/8" hole to 5478'; sand, sandstone and shale
5/1	Drilled 7 7/8" hole to 6279; sand, sandstone and shale. Mud 75 pcf, viscosity 41 ss.
5/2	Drilled 7 7/8" hole to 7013'; sand, clay and sandstone. Mud 76 pcf, viscosity 40 ss. Deviation at 6279' 0°.

RECEIVED
MAY 16 1977
DIVISION OF OIL & GAS
COALINGA

OG103 (6-76-GSPI-10M)

SUBMIT IN DUPLICATE

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

History of Oil or Gas Well

Operator ..... Field or County .....
Well name and No. ....., Sec....., T....., R....., B. & M.
A.P.I. well No. ..... Name ..... Title .....
(Person submitting report) (President, Secretary or Agent)
Date ....., 19.....

Signature .....

..... (Address) ..... (Telephone Number)

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests and initial production data.

Date	
5/3	Drilled 7 7/8" hole to 7606'; sand, clay and siltstone. Mud 77 pcf, viscosity 37 ss. Deviation 7606' 1°.
5/4	Drilled 7 7/8" hole to 8013'; siltstone and sandstone. No shows. Mud 76 pcf, viscosity 38 ss.
5/5	Ran IES log from 7885' to 812' Cement plug #I. Equalized 75 sx Class G. cement mixed w/ 3% $CaCl_2$ through drill pipe at 860'. Cement in place at 1:30 p.m. Felt for plug at 4:00 p.m. and located top cement at 708'. D.O.G. Inspector, Ellen Fleming witnessed and approved plug. Cement plug #2. Equalized 25 sax Class G cement through Drill Pipe at 60' and cemented to surface. Cut off 8 5/8" casing 5' below ground surface. Welded steel plate on stub and Abandoned. Released rig at 11:59 p.m.

RECEIVED
MAY 16 1977
DIVISION OF OIL & GAS
COALINGA

OG103 (6-76-GSPB-10M)

EXPLORATION LOGGING

A GEOLOGICAL - ENGINEERING SERVICE

REMARKS

DRILLING CONTRACTOR: HUNNICUT & CAMP — RIG NO. 4

SPUD DATE: 4/26/77

TYPE MUDS: GEL-LIGNITE

CASING RECORD

8-5/8" AT 812

AT

HOLE SIZE

12-1/4" TO 812

7-7/8" TO 8013

ABBREVIATIONS

NB	NEW BIT	W	MUD WEIGHT
RRB	RERUN BIT	V	MUD VISCOSITY
CB	CORE BIT	F	MUD FILTRATE ☐ CC/30 MIN
CR	CIRCULATE RETURNS	FC	FILTER CAKE
NR	NO RETURNS	SD	SAND CONTENT
PR	POOR RETURNS	S	SALINITY ☐ G/G ____ ☐ PPM ____
LAT	LOGGED AFTER TRIP		
TG	TRIP GAS	R	RESISTIVITY OF MUD
CG	CONNECTION GAS	RF	RESISTIVITY MUD FILTRATE
C	CARBIDE		
DST	DRILL STEM TEST		
]	DST INTERVAL		
I	CORE INTERVAL		

OIL: Based on live oil in unwashed cuttings and percentage staining of washed cuttings.

GAS UNITS: Gas Detector calibrated to record 100 units with a mixture of 2% methane-in-air.

LITHOLOGY SYMBOLS

LIME-STONE, DOLO-MITE, GYPSUM AND ANHYDRITE, SALT, COAL AND LIGNITE, CLAY, SHALE, SILT-STONE, SANDY SILTST., SAND, CONGL-OMERATE, CHERT, VOL-CANICS, INTRU-SIVE

COMPANY: HILLIARD OIL & GAS COMPANY

WELL: "DEUS" No. 1

FIELD: TURLOCK

LOCATION: SEC. 4, T6S-R10E, MDB&M FROM SE COR., 660N-1980|E

COUNTY, STATE: MERCED, CALIFORNIA

API WELL INDEX NO. 047-20054

ELEVATION: 98 (KB)

DATE: FROM 4/30/77 TO 5/5/77

DEPTH: FROM 4500 TO 8013

UNIT NO. 5

LOGGING GEOLOGISTS: M. RODGERS, B. ALTER

EXPLORATION LOGGING INC.

DRILLING RATE AND DATA

☒ FT/HR ☐ MIN/FT

VISUAL POROSITY: GD. FAIR TR. CORE TEST

250 200 150 100 50

DEPTH: 4500, 4600

LITHOLOGY

OIL: TRACE, SD. TRACE, FAIR, GOOD, GOOD

DRILLING MUD — CONTINUOUS DITCH GAS

OIL IN MUD: TR. x, FAIR xx, GD. xxx

TOTAL GAS (BACKUP SCALE = 10X)

PETROL VAP

BLENDOR GAS

20 40 60 80 100 150 200

CUTTINGS: CUT: FAIR, GOOD

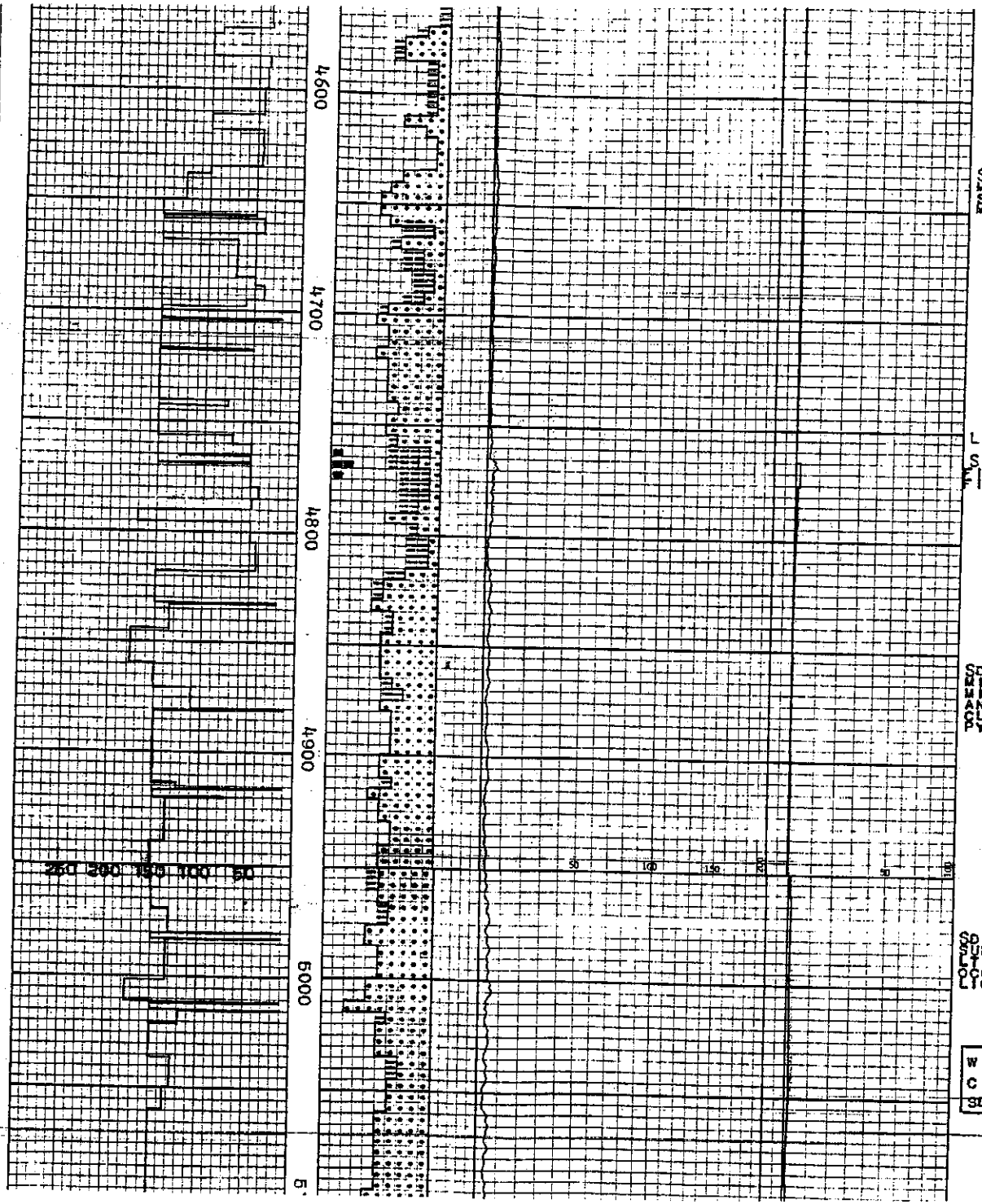
GAS: TOTAL GAS (BACKUP SCALE = 10X), PETROL VAP

20 40 60 80 100

REMARKS AND LITHOLOGY DESCRIPTION

CLAY: LT GY, SILTY, SOL, SOFT, SDY IN PART, MINOR BRN CARB SILST

SD: VF-MED, CLR QTZ, MULTI CLRD RE FRAGS, SUBANG, GY WHT CLAY



SD: VF-MED, CLR QTZ, MUTT CLRD RE FRAGS, SUBANG, GY WHT CLAY MATRIX

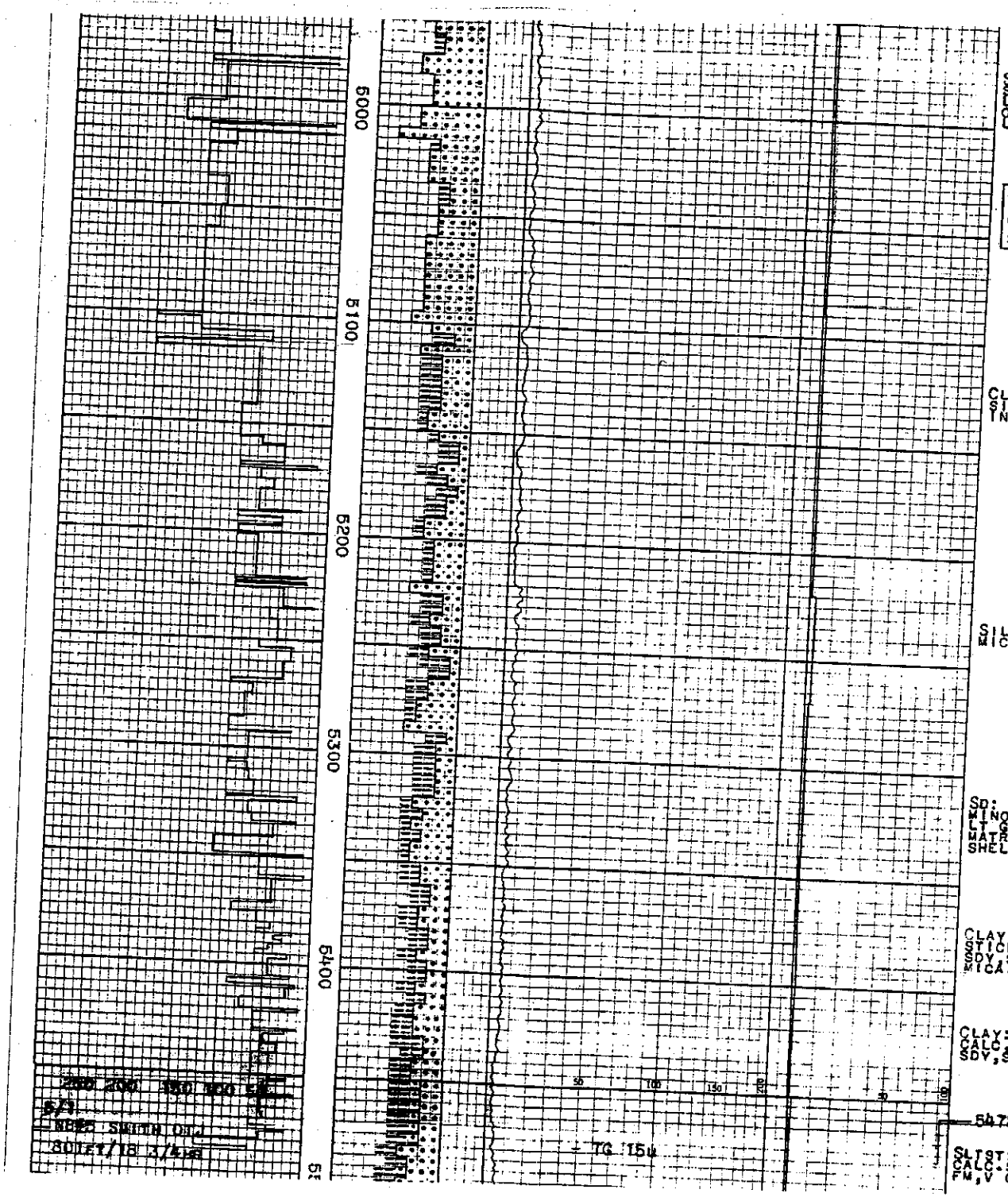
LIGNITE: DK BRN-BLK

SILST: DK-MED BRN, SOFT-FIRM, MICROCARB, SM SL SS

SD: VF-CRSE, CLR QTZ, MINOR CLRD LITHIC GRN S MICA, ALT FELD, SUB-ANG, LT GY-LT GY BRN CLAY MATRIX, GD TR PYRITE, LIGNITE

SD: VF-F, CLR QTZ, ANG-SUBANG, MINOR CLRD GRNS, LT GY GY BRN CLAY MATRIX OCCAS CALC SS GD TR LIGNITE

W 74	V 38	F 8.2
C 2/32	PH 10.4	
SD 1½	S 900PPM	



SD: VF-F, CLR QTZ, ANG-SUBANG, MINOR CLRD GRNS, LT GY GY BRN CLAY MATRIX, OCCAS CALC SS GD TR LIGNITE

W 74	V 38	F 8.2
C 2/32	PH 10.4	
SD 1½	S 900PPM	

CLAY: LT BRN, SOFT, SILTY, TACKY, HYD, V/SDY IN PART, TR LIGNITE

SILST: DK BRN, FIRM, MICROCARB, MINOR GY GRN

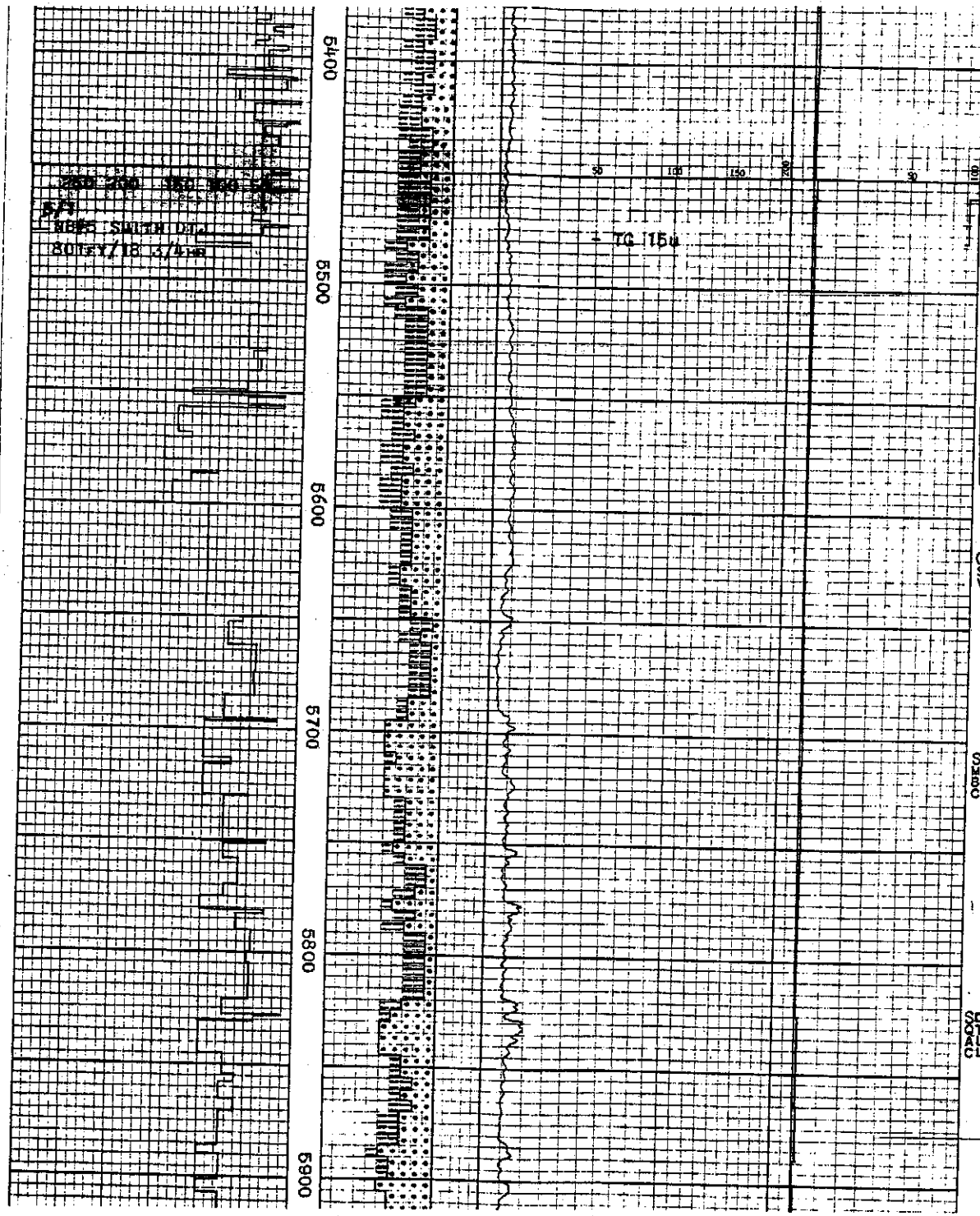
SD: PREDOM VF-F, CLR QTZ MINOR CLRD GRNS, MICA, LT GY, LT GY BRN CLAY MATRIX, OCCAS CALC SS SHELL

CLAY: DK GY-GYBN, MOD FM, STICKY, HYD, NON CALC, SDY, SLTY, TR LIGN, TR V/ MICA.

CLAY: WH-LT GY, MOD-V CALC, SL FM, SL STICKY, HYD, SDY, SLTY.

5478' 0°15'

SLTST: LT GN-LT GYGN, NON CALC, SLTST, LT-M GY, MOD FM, V CALC, INTLAYERED BIOT



CLAY: DK GY-GYBN,MOD FM, STICKY,HYD,NON CALC,V/ SDY,SLTY,TR LIGN,TR MICA.

CLAY: WH-LT GY,MOD-V CALC,SL FM,SL STICKY,HYD, SDY,SLTY.

5478' 0°15'

SLTST: LT GN-LT GYGN,NON CALC-SLTST:LT-M GY,MOD FM,V CALC,INTLAYERED BIOT

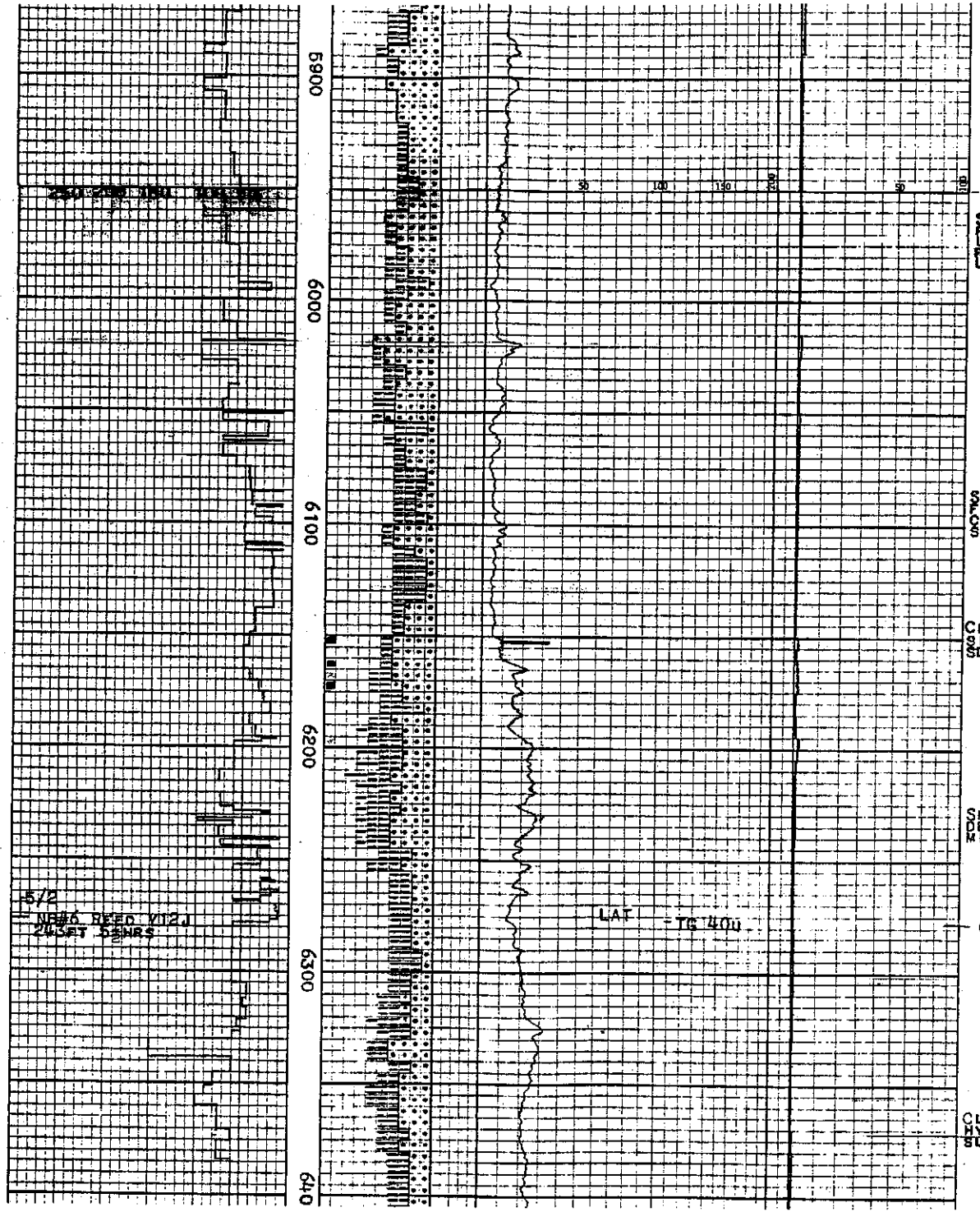
SDST:WH-LT GY,W INDFRI, V CALC CMT,PRED CLR,F-M, SBRND-SBANG QTZ,ABNT BIOT.

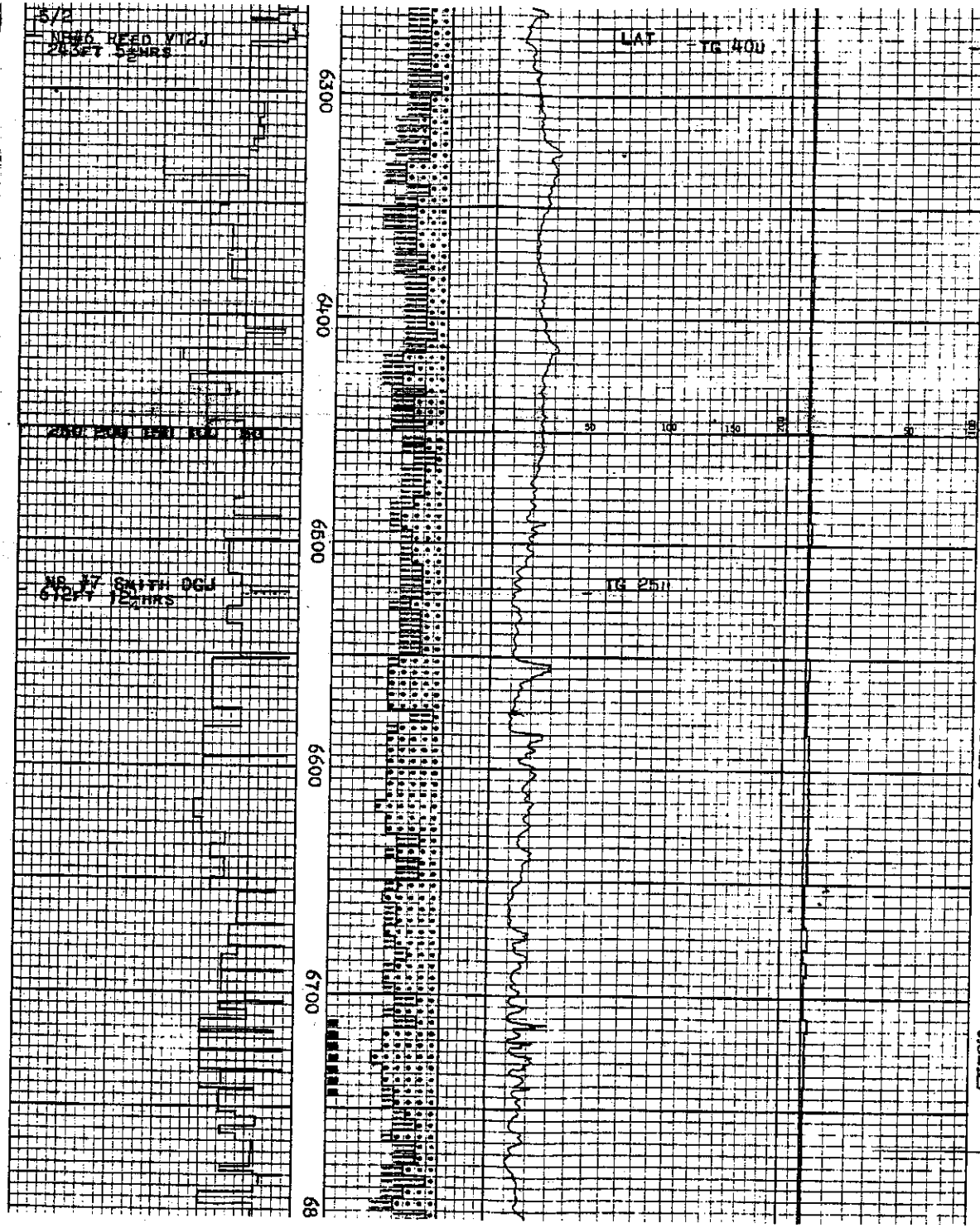
W 75	V 42	F 7
C 2/32	PH 10.5	
SD $1\frac{1}{4}$	S 1000 PPM	

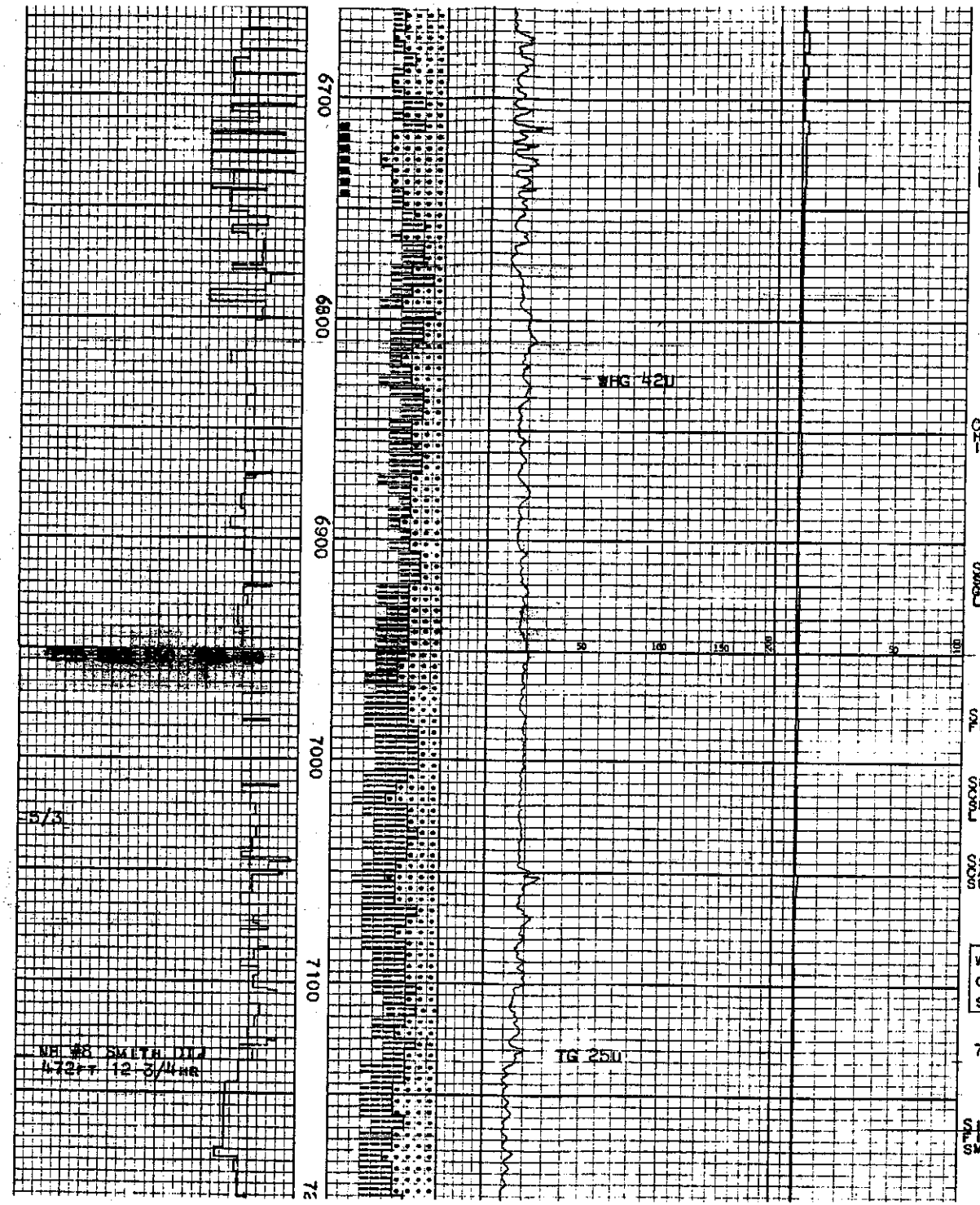
CLAY: GY-GY BRN-LT BRN SILTY, SOFT, SOL, CARB V/SDY IN PART

SD: VF-CRSE, CLR QTZ, MIC, ANG-SUBANG, GY BRN-WHT KAOL CLAY MATR IN CARB IN PART

SD: F-CRSE, CLR-FRSTD QTZ, ANG-SUBANG, BIO, ALT FELD, GY WHT KAOL CLAY MATRIX, TR LIGNITE


5900
6000
6100
6200
6300
640
50
100
150
200
50
100
SS: PREDOM F-MED, CLR FRSTD QTZ, MINOR CERG LITHIC GRNS, BIO, ALT FELD, CALC CMNT, TR LIGNITE
SILST: DK BRN, GY BRN, FIRM, MICROMIC, MICRO CARB TO CARB IN PART, SDY IN PART, SL CALC
CLAY: MED BRN, SOFT, SILTY, MICROCARB, SDY IN PART
SH: LT GN-LT GYGN, MODHD, DENSE, BLKY, SL TR MICRO-MIC.
CLAY: M BN-M GYBN, MOD FM, HYD, NON CALC, MOD SOL, SDY, SLTY.
LAT
TG 40u
6279' 0°00'
572
NB#6 REED V112J
243FT 5½HRS


5/2
NB#6 REED VT2J
243FT 5½HRS
NB 17 SMITH OGJ
6700
68
LAT
TG 400
TG 250
50
100
150
6279' 0°00'
CLAY: M BN-M GYBN, MOD FM, HYD, NON CALC, MOD SOL, SDY, SLTY.
SD: PRED CLR, FROS, WHITE, VF-C, SBANG-SBRND QTZ, MNR VCOL LITH GRNS, ALT FLD, TR PYR.
CLAY: MED BRN, SILTY, SOFT, CARB, V/SDY IN PART
W 78 V 44 F 6.0
C 2/32 PH 10.8
SD 2% S 1200PPM
LOST CONE
SD: VF-CRSE, CLR-FRSTD QTZ, MINOR CLRD GRNS, ANG-SUBANG, BIO, ALT FELD, LT GY CLAY MATRIX TR LIGNITE, OCCAS HD CALC CMNTD
SD: VF-CRSE, CLR-FRSTD QTZ, MIC, ALT FELD, LT GY, GY BRN, CLAY MATRIX, TR PYRITE LIGNITE: BLKADK BRN



SD: VF-CRSE, CLR-FRSTD QTZ, MIC, ALT FELD, LT GY, GY, BRN, CLAY MATRIX, TR PYRITE LIGNITE: BLKADK BRN

CLAY: LT-M BN, SL-MOD FM, HYD, NON CALC, SLTY, SDY IN PART.

SD: VF-C, CLR-FROS, SBRND-SBANG QTZ, ALT FLD, WH-LT GY CLY MTX, TR MICA, TR LIG, TR PYR.

SLTST: DK BN-DK GYBN, MOD FM, FISSILE BDG, LOC CALC.

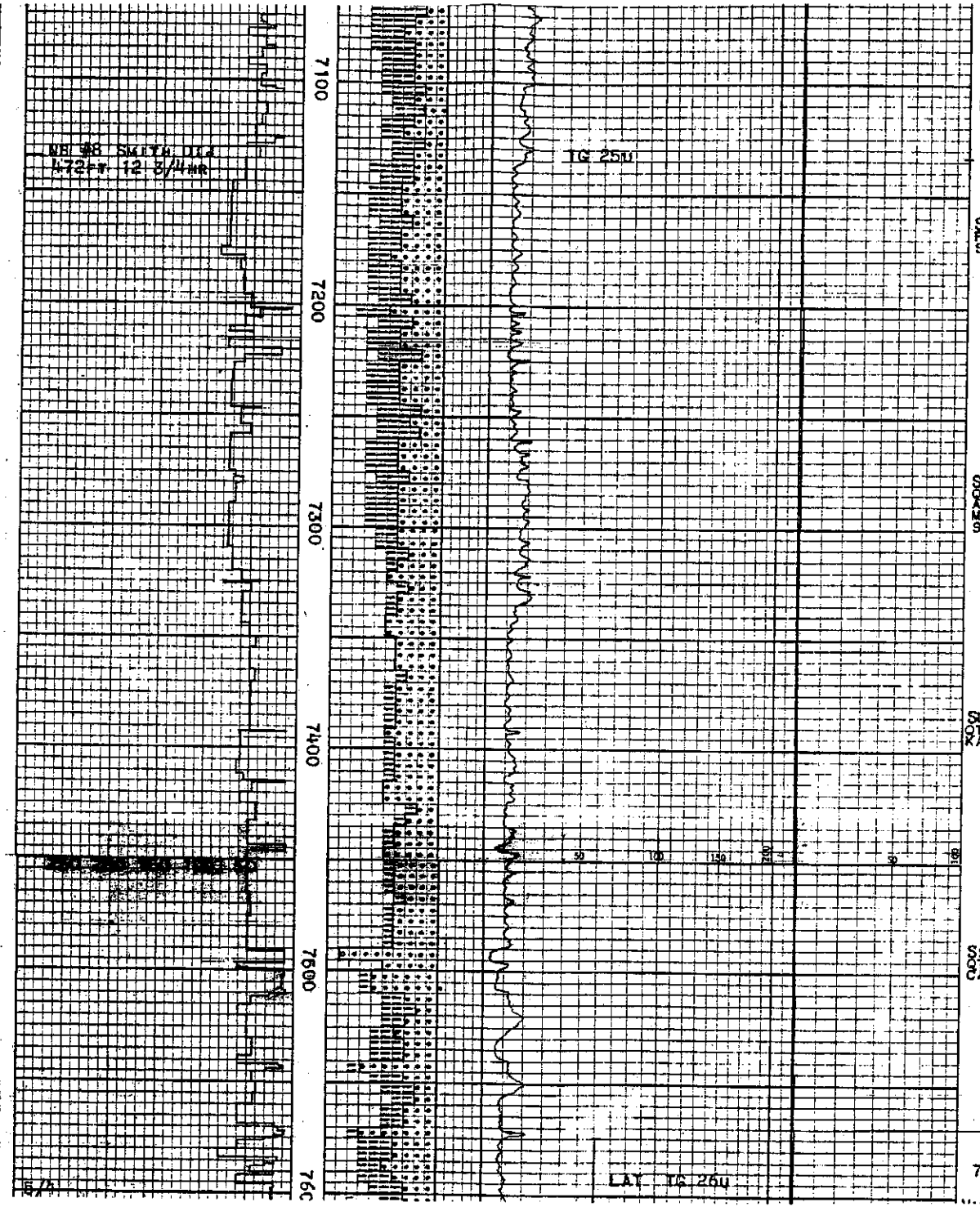
SD: PRED F-VC, MOSTLY VC, CLR-FROS, RD-SBANG QTZ SME VCOL LITH FRAGS, TR LIG.

SS: WH-LT GY, W IND, FRI, CALC CMT, PRED CLR, F-C, SBRD-SBANG QTZ, MNR BIOT.

W 76	V 35	F 6.0
C 2/32	PH 11.0	
SD TR	S 1100PPM	

7134 0° 30

SILST: MED-DK BRN, SOF FIRM, CARB IN PART SM SL FISS, SL CALC



W 76 V 35 F 6.0
C 2/32 PH 11.0
SD TR S 1100PPM

7134 0° 30

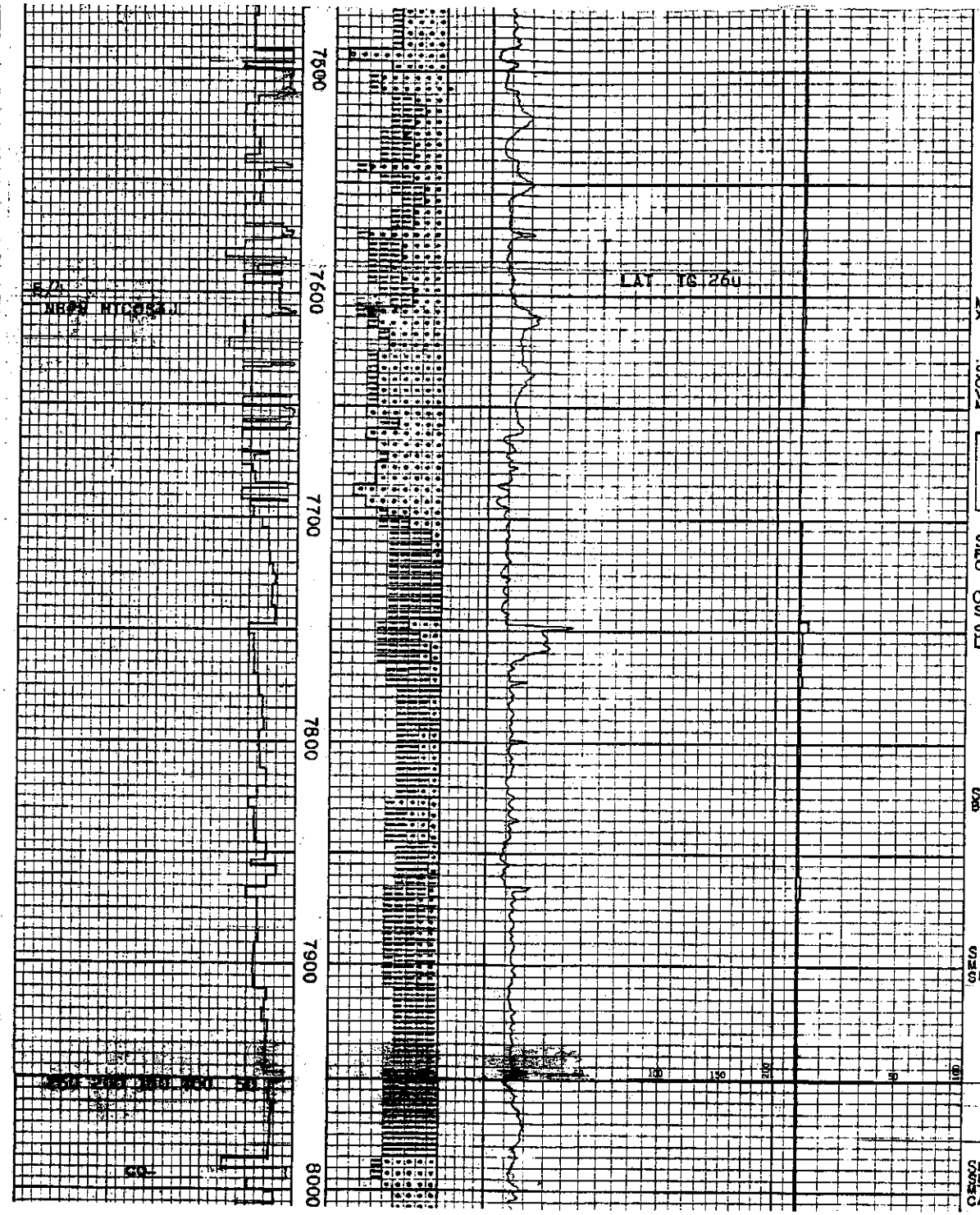
SILST: MED-DK BRN, SOF FIRM, CARB IN PART, SM SL FISS, SL CALC

SD: F-CRSE, CLR-FRSTD QTZ, ANG-SUBANG, BIO, ALT FELD, KAOL CLAY MATRIX, OCCAS HD CALC SS

SD: F-V/CRSE, CLR-FRSD QTZ, BIO, ALT FELD, KAOL CLAY MATRIX

SS: VF-MED, CLR-FRSTD QTZ, BIO, FELD, MASS, CALC CMNTD

7606 1°00



SS: VF-MED, CLR-FRSTD QTZ, BIO, FELD, MASS, CALC CMNTD

7606 1°00

MNR BUFF-LT BN, HD, DNS, XLN LIMESTONE.

SS: WH-LT GY, W IND, FRI, CALC CMT, DOM CLR-FROS, VF-M GR, SBRD-SBANG QTZ, MNR LITH FRAGS.

W 77	V 43	F 5.8
C 2/32	PH 11.2	
SD ¼%	S 1200PPM	

SILST: BRN-DK BRN, SOFT-FIRM, MICROMIC, MICRO-CARB, SDY IN PART

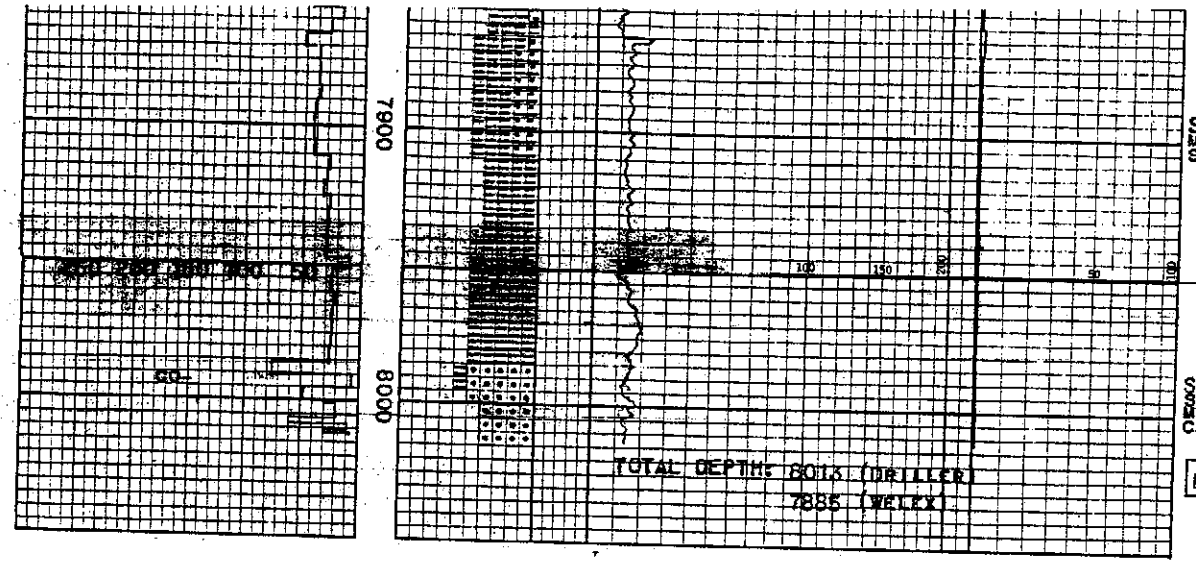
CLAY: CHOC BRN, SFT, SILTY, SOL

SD: VF-F, QTZ, BIO, LT GY CLAY MATRIX

SD: VF-M, CLR-FRSTD QTZ BIO, KAOL, V/GLAYEY

SILST: BRN-DK BRN, FIRM, MICROMIC, MICROCARB, SL CALC

SD: CLR-FROS, F-C, SBRD-SBANG QTZ, MNR BIOT, KAOL MTX: OCC HD SS SHELLS/ CALC CMT.



SILST: BRN-DK BRN, FIRM, MICROMIC, MICROCARB, SL CALC

SD: CLR-FROS,F-C,SBRD-SBANG QTZ,MNR BIOT,KAOL MTX:OC,HD SS SHELLS/ CALC CMT.

RAN WELEX Logs

HILMAR CHEESE COMPANY MONITORING WELLS

Date Drilled:	Logged:	Elevation:	TOC	Driller	Drill Rig	Sheet:	Well No.
1/13/98	JBJ	91.13	93.83	V&W Drilling	BK-81	1 of 1	MW-11

Elev. (feet)	Litho Log	Description	Depth (feet)	Well Detail	Samples STP	Notes
		Fill/Topsoil: Grayish brown CLAYEY SILT (ML), soft, moist	0			
90			1			
			2			
			3			
			4			
		Modesto Formation: Orange brown SILTY SAND (SM), med to fine, damp	5		7,10,5	
85		Orange brown SILTY SAND (SM), med to fine, wet	6		3,3,4	
			7			
		Orange brown SILTY SAND (SM), med to fine, damp	8		4,6,7	
		Lt brown SILTY SAND (SM), med to coarse, wet	9		3,4,5	
			10			
80		Lt brown SILTY SAND (SM), med to fine, wet; with 3" layer SANDY SILT (ML), dk brown, firm	11		2,2,11	
		Lt brown SILTY SAND (SM), med to fine; with 6" layer SANDY SILT (ML), dk brown, firm	12		6,9,12	
			13			
		Orange brown SILTY SAND (SM), med to fine, wet dense	14		9,15,18	
		Orange brown SILTY SAND (SM), med to fine, wet loose	15		6,10,14	
75			16			
		Grayish brown SILTY SAND (SM), med to coarse dense	17		7,10,20	
		Grayish brown SILTY SAND (SM), med to coarse dense	18		6,10,15	
			19			
		Grayish brown SILTY SAND with Clay (SM,ML) dense/firm.	20		9,12,20	
			21			
			22			

Notes:

Bottom of boring 20.5 feet
Groundwater at 8 feet
Well completed 1/14/98

Notes: STP samples taken at 18" intervals using a 140 lb drive hammer Blow counts recorded for each 6 inches. Earth materials recorded at time and date of exploration and can vary with vertical and lateral extent. Well elevations based on Nolte and Associates, Inc. survey.

SFC Consultants

BORING AND WELL COMPLETION LOG
WELL MW-11
MONITORING WELL NETWORK
HILMAR, CALIFORNIA

Slotted casing
Solid casing
Filter pack
Grout or Bentonite

Figure A-1

Date Drilled:	Logged:	Elevation:	TOC	Driller	Drill Rig	Sheet:	Well No.
1/13/98	JBJ	87.65	91.08	V&W Drilling	BK-81	1 of 1	MW-12

Elev. (feet)	Litho Log	Description	Depth (feet)	Well Detail	Samples STP	Notes
		Fill/Topsoil: Grayish brown CLAYEY SILT (ML), soft, moist	0			
			1			
85			2			
			3			
			4			
		Grayish brown SANDY SILT (ML), very frim	5		10,10,24	
			6			
		Grayish brown SANDY SILT (ML), stiff	7		9,11,19	
80						
		Yellow brown CLAYEY SILT (ML), very stiff, with mottled orange brown SILTY SAND with FeOx stain	8		10,18,24	
		Modesto Formation: Orange brown SILTY SAND (SM), med to coarse, wet dense	9		12,14,24	
			10			
		Orange brown SILTY SAND (SM), med to coarse, wet very dense	11		12,32,40	
75			12			
		Orange brown SILTY SAND (SM), med to coarse, wet very dense	13		16,32,48	
		Orange brown SILTY SAND (SM), med to fine, wet very dense	14		17,34,50	
			15			
		Orange brown SILTY SAND (SM), med to fine, wet dense	16		6,10,30	
70		Orange brown SILTY SAND (SM), med to fine, wet loose	17		3,10,10	
			18			
		Orange brown SILTY SAND (SM), med to fine, wet loose	19		2,16,46	flowing sand
		Grayish brown SANDY SILT (ML), fine sand, firm	20		4,8,14	
			21			
			22			

Notes

Bottom of boring 21 feet
Groundwater at 8 feet
Well competed 1/13/98

Notes: STP samples taken at 18" intervals using a 140 lb drive hammer Blow counts recorded for each 6 inches. Earth materials recorded a time and date of exploration and can vary with vertical and latera extent. Well elevations based on Nolte and Associates, Inc. survey.

SFC Consultants

BORING AND WELL COMPLETION LOG
WELL MW-12
MONITORING WELL NETWORK
HILMAR, CALIFORNIA

Slotted casing
Solid casing
Filter pack
Grout or Bentonite

Figure **A-2**

Date Drilled:	Logged:	Elevation:	TOC	Driller:	Drill Rig	Sheet:	Well No.
1/13/98	JBJ	92.31	95.23	V&W Drilling	BK-81	1 of 1	MW-13

Elev. (feet)	Litho Log	Description	Depth (feet)	Well Detail	Samples STP	Notes
		Fill/Topsoil : Dark brown SILTY SAND (SM)	0			
			1			
90			2			
			3			
			4			
		Modesto Formation Orange brown SILTY SAND (SM) med to fine,	5		4,6,7	
			6			
		Orange brown SILTY SAND (SM) fine	7		4,5,6	
85						
		Gray brown SILTY SAND (SM) micaceous	8		8,8,10	
			9			
		Gray brown SILTY SAND (SM) medium to coarse	10		6,22,29	
		Orange brown SILTY SAND (SM) med to coarse	11		p,14,15	
80			12			
			13			
		Orange brown SILTY SAND (SM) med to coarse	14		6,19,22	
			15			
			16			
75		Orange brown SILTY SAND (SM) med to coarse	17		11,14,50	
			18			
			19			
		Gray brown SILTY CLAY (CL), moist, dense	20		2,8,10	
			21			
			22			

Notes:

Bottom of boring 20.5 feet
Groundwater at 5.0 feet
Well completed 1/13/98

Notes: STP samples taken at 18" intervals using a 144 lb driv hammer. Blow counts recorded for each 6 inches. Earth material recorded at time and date of exploration and can vary with vertical an lateral extent. Well elevations based on Nolte and Associates, Inc survey.

SFC Consultants

BORING AND WELL COMPLETION LOG
WELL MW-13
MONITORING WELL NETWORK
HILMAR, CALIFORNIA

Slotted casing
Solid casing
Filter pack
Grout or Bentonite

Figure A-3

Date Drilled:	Logged:	Elevation:	TOC	Driller:	Drill Rig	Sheet:	Well No.
1/12/98	JBJ	90.73	91.9	V&W Drilling	BK-81	1 of 1	MW-14

Elev. (feet)	Litho Log	Description	Depth (feet)	Well Detail	Samples STP	Core Barrel	Notes
		Fill/Topsoil: Dark brown SILTY SAND (SM)	0				
90			1				
			2				
			3				
			4				
		Gray brown CLAYEY SILT (ML)	5				
85			6				
			7				
		Modesto Formation Orange brown SILTY SAND (SM), very loose, flowing	8				flowing sands
			9				
		Orange brown SILTY SAND (SM), wet, loose	10		2,5,7		
80		Orange brown SILTY SAND (SM) med to coarse	11		55+		SPT refusal
			12				
			13				
		Orange brown SILTY SAND (SM) med to coarse	14		21,67,87		SPT refusal
			15				
75			16				
		Yellow brown CLAYEY SILT (ML), micaceous, very stiff	17		9,38,44		
			18				
			19				
		Yellow brown SILTY CLAY (ML), stiff	20		9,17,41		
			21				
			22				

Notes:

Bottom of boring 20.5 feet
Groundwater at 7 feet
Well completed 1/14/98

Notes: STP samples taken at 18" intervals using a 140 lb drive hammer. Blow counts recorded for each 6 inches. Earth materials recorded at time and date of exploration and can vary with vertical and lateral extent. Well elevations based on Nolte and Associates, Inc. survey.

SFC Consultants

BORING AND WELL COMPLETION LOG
WELL MW-14
MONITORING WELL NETWORK
HILMAR, CALIFORNIA

Slotted casing
Solid casing
Filter pack
Grout or Bentonite

Figure A-4

Date Drilled:	Logged:	Elevation:	TOC	Driller:	Drill Rig	Sheet:	Well No.
1/13/98	JBJ	91.90	94.44	V&W Drilling	BK-81	1 of 1	MW-15

Elev. (feet)	Litho Log	Description	Depth (feet)	Well Detail	Samples STP	Notes
		Fill/Topsoil: Dark brown SILTY SAND (SM)	0			
90			1			
			2			
			3			
			4			
		Modesto Formation Orange brown SANDY SILT (ML), micaceous	5		5,4,5	
85			6			
			7			
		Gray brown SILTY SAND (SM) micaceous	8		4,5,8	
			9			
			10			
80		Orange brown SILTY SAND (SM) med to coarse micaceous	11		5,6,17	
			12			
			13			
		Lt gray brown SILTY SAND (SM) med to coarse	14		6,19,22	
			15			
75			16			
		Orange brown SILTY SAND (SM) med to coarse	17		6,10,20	
			18			
			19			
		Dk brown CLAYEY SAND (SC), med to coarse moderately dense	20		11,26,28	
			21			
			22			

Notes:

Bottom of boring 20.5 feet
Groundwater at 5.0 feet
Well completed 1/13/98

Notes: STP samples taken at 18" intervals using a 144 lb drive hammer Blow counts recorded for each 6 inches. Earth materials recorded at time and date of exploration and can vary with vertical and lateral extent. Well elevations based on Nolte and Associates, Inc. survey.

SFC Consultants

BORING AND WELL COMPLETION LOG
WELL MW-15
MONITORING WELL NETWORK
HILMAR, CALIFORNIA

Slotted casing
Solid casing
Filter pack
Grout or Bentonite

Figure A-5

Date Drilled:	Logged:	Elevation:	TOC	Driller:	Drill Rig	Sheet:	Well No.
1/12/98	JBJ	86.79	90.37	V&W Drilling	BK-81	1 of 1	MW-16

Elev. (feet)	Litho Log	Description	Depth (feet)	Well Detail	Samples STP	Notes
		***Fill/Topsoil*:** Dark brown SILTY SAND (SM)	0			
			1			
85			2			
			3			
			4			
		Modesto Formation Brown SILTY SAND (SM) med to coarse, moist loose	5		6,5,6	
			6			
80			7			
		Orange brown SILTY SAND (SM) med to coarse loose	8		4,4,5	
			9			
			10			
		Orange brown SILTY SAND (SM) med to fine dense	11		5,8,14	
75			12			
			13			
		Lt gray brown SILTY SAND (SM) med to coarse black micaceous streaks	14		5,11,14	
			15			
			16			
70		Orange brown SILTY SAND (SM) med to coarse	17		2,2,6	
			18			
			19			
		Dk brown CLAYEY SAND (SC), med to coarse moderately dense	20		8,12,18	
			21			
			22			

Notes:

Bottom of boring 20.5 feet
Groundwater at 5.0 feet
Well completed 1/12/98

Notes: STP samples taken at 18" intervals using a 144 lb drive hammer Blow counts recorded for each 6 inches. Earth materials recorded at time and date of exploration and can vary with vertical and lateral extent. Well elevations based on Nolte and Associates, Inc. survey.

SFC Consultants

BORING AND WELL COMPLETION LOG
WELL MW-16
MONITORING WELL NETWORK
HILMAR, CALIFORNIA

Slotted casing
Solid casing
Filter pack
Grout or Bentonite

Figure A-6

Date Drilled:	Logged:	Elevation:	TOC	Driller:	Drill Rig	Sheet:	Well No.
1/12/98	JBJ	86.46	89.92	V&W Drilling	BK-81	1 of 1	MW-17

Elev. (feet)	Litho Log	Description	Depth (feet)	Well Detail	Samples STP	Notes
		***Fill/Topsoil*:** Dark brown SILTY SAND (SM)	0			
			1			
85			2			
			3			
			4			
		Modesto Formation Brown SILTY SAND (SM) med to coarse, moist loose	5		6,7,8	
			6			
80		Gray brown SILTY SAND (SM), med to coarse wet, loose	7		4,5,9	
		Orange brown SILTY SAND (SM) med to coarse loose	8		3,5,5	
			9			
		Orange brown SILTY SAND (SM) med to coarse micaceous, loose	10		4,5,6	
		Orange brown SILTY SAND (SM) med to fine dense	11		9,13,15	
75			12			
		Orange brown SILTY SAND (SM) med to fine very dense	13		14,38,35	
		Gray brown SILTY SAND, med to fine, locally silty interbeds	14		2,5,21	
			15			
		Orange brown SILTY SAND (SM) med to coarse very dense	16		10,16,35	
70		Orange brown SILTY SAND (SM) med to coarse very dense	17		4,25,50+	SPT refusal
			18			
		Orange brown SILTY SAND (SM) med to coarse	19		4,18,31	
		Gray brown CLAYEY SILT (ML), moist, mod. stiff	20		4,5,12	
			21			
			22			

Notes:

Bottom of boring 20.5 feet
Groundwater at 5.0 feet
Well completed 1/12/98

Notes: STP samples taken at 18" intervals using a 144 lb drive hammer Blow counts recorded for each 6 inches. Earth materials recorded at time and date of exploration and can vary with vertical and lateral extent. Well elevations based on Nolte and Associates, Inc. survey.

SFC Consultants

BORING AND WELL COMPLETION LOG
WELL MW-17
MONITORING WELL NETWORK
HILMAR, CALIFORNIA

Slotted casing
Solid casing
Filter pack
Grout or Bentonite

Figure A-7

Date Drilled:	Logged:	Elevation:	TOC	Driller	Drill Rig	Sheet:	Well No.
1/13/98	JBJ	91.13	93.83	V&W Drilling	BK-81	1 of 3	MW-18

Elev. (feet)	Litho Log	Description	Depth (feet)	Well Detail	Samples STP	Notes
		Fill/Topsoil: Grayish brown CLAYEY SILT (ML), soft, moist	0			
90			1			
			2			
			3			
			4			
		Modesto Formation: Orange brown SILTY SAND (SM), med to fine, damp	5		7,10,5	
85		Orange brown SILTY SAND (SM), med to fine, wet	6		3,3,4	
			7			
		Orange brown SILTY SAND (SM), med to fine, damp	8		4,6,7	
		Lt brown SILTY SAND (SM), med to coarse, wet	9		3,4,5	
			10			
80		Lt brown SILTY SAND (SM), med to fine, wet; with 3" layer SANDY SILT (ML), dk brown, firm	11		2,2,11	
			12			
		Lt brown SILTY SAND (SM), med to fine; with 6" layer SANDY SILT (ML), dk brown, firm	13		6,9,12	
		Orange brown SILTY SAND (SM), med to fine, wet dense	14		9,15,18	
			15			
		Orange brown SILTY SAND (SM), med to fine, wet loose	16		6,10,14	
75		Grayish brown SILTY SAND (SM), med to coarse dense	17		7,10,20	
			18			
		Grayish brown SILTY SAND (SM), med to coarse dense	19		6,10,15	
		Grayish brown SILTY SAND with Clay (SM,ML) dense/firm.	20		9,12,20	
		Continued on sheet 2 of 3	21			
			22			

Notes: STP samples taken at 18" intervals using a 140 lb driv hammer. Blow counts recorded for each 6 inches. Earth material recorded at time and date of exploration and can vary with vertical an lateral extent. Well elevations based on Nolte and Associates, Inc survey.

SFC Consultants

BORING AND WELL COMPLETION LOG
WELL MW-18
MONITORING WELL NETWORK
HILMAR, CALIFORNIA

Slotted casing
Solid casing
Filter pack
Grout or Bentonite

Figure A-8-1

Date Drilled:	Logged:	Elevation:	TOC	Driller	Drill Rig	Sheet:	Well No.
1/13/98	JBJ	91.13	93.83	V&W Drilling	BK-81	2 of 3	MW-18

Elev. (feet)	Litho Log	Description	Depth (feet)	Well Detail	Samples STP	Notes
		Modesto Formation:	20			
70			21			
			22			
			23			
			24			
		Grayish brown SILTY SAND (SM) med to coarse loose	25		6,10,13	
65			26			
			27			
			28			
			29			
		Grayish brown SILTY SAND (SM) med to coarse dense	30		4,10,29	
60			31			
			32			
			33			
			34			
			35			
		Grayish brown SILTY SAND (SM) med to coarse dense	36		6,19,30	
55			37			
			38			
			39			
		Grayish brown SILTY SAND (SM) med to coarse very dense	40		10,12,50+	STP refusal
			41			
			42			
			43			

Continued on sheet 3 of 3

Notes: STP samples taken at 18" intervals using a 140 lb drive hammer Blow counts recorded for each 6 inches. Earth materials recorded a time and date of exploration and can vary with vertical and latera extent. Well elevations based on Nolte and Associates, Inc. survey.

SFC Consultants

BORING AND WELL COMPLETION LOG
WELL MW-18
MONITORING WELL NETWORK
HILMAR, CALIFORNIA

Slotted casing
Solid casing
Filter pack
Grout or Bentonite

Figure A-8-2

Date Drilled:	Logged:	Elevation:	TOC	Driller	Drill Rig	Sheet:	Well No.
1/13/98	JBJ	91.13	93.83	V&W Drilling	BK-81	3 of 3	MW-18

Elev. (feet)	Litho Log	Description	Depth (feet)	Well Detail	Samples STP	Notes
		Modesto Formation:	40			
50			41			
			42			
			43			
			44			
		Dark brown SILTY CLAY (SC), firm; with 1 to 3" layers gray brown SILTY SAND, med to fine, FeOx stains,	45		9,26,29	
45			46			
			47			
			48			
			49			
		Dark brown micaceous SANDY SILT (ML), very firm with Silty SAND with micaceous silt, dense	50		25,50+	STP refusal
40			51			
			52			
			53			
			54			
			55			
		Orangish brown SILTY SAND with trace Clay (SM), micaceous, very dense	56		24,50+	STP refusal
35			57			
			58			
			59			
			60		29,40,50+	STP refusal

Bottom of boring 60 feet
Groundwater at 7 feet
Well completed 1/14/98

Notes: STP samples taken at 18" intervals using a 140 lb drive hammer. Blow counts recorded for each 6 inches. Earth materials recorded at time and date of exploration and can vary with vertical and lateral extent. Well elevations based on Nolte and Associates, Inc. survey.

SFC Consultants

BORING AND WELL COMPLETION LOG
WELL MW-18
MONITORING WELL NETWORK
HILMAR, CALIFORNIA

Slotted casing
Solid casing
Filter pack
Grout or Bentonite

Figure A-8-3

Date Drilled:	Logged:	Elevation:	TOC	Driller	Drill Rig	Sheet:	Well No.
1/13/98	JBJ	87.51	91.84	V&W Drilling	BK-81	1 of 3	MW-19

Elev. (feet)	Litho Log	Description	Depth (feet)	Well Detail	Samples STP	Notes
		Fill/Topsoil: Grayish brown CLAYEY SILT (ML), soft, moist	0			
			1			
85			2			
			3			
			4			
		Grayish brown SANDY SILT (ML), very frim	5		10,10,24	
			6			
		Grayish brown SANDY SILT (ML), stiff	7		9,11,19	
80						
		Yellow brown CLAYEY SILT (ML), very stiff, with mottled orange brown SILTY SAND with FeOx stain	8		10,18,24	
		Modesto Formation: Orange brown SILTY SAND (SM), med to coarse, wet dense	9		12,14,24	
			10			
		Orange brown SILTY SAND (SM), med to coarse, wet very dense	11		12,32,40	
75			12			
		Orange brown SILTY SAND (SM), med to coarse, wet very dense	13		16,32,48	
		Orange brown SILTY SAND (SM), med to fine, wet very dense	14		17,34,50	
			15			
		Orange brown SILTY SAND (SM), med to fine, wet dense	16		6,10,30	
70		Orange brown SILTY SAND (SM), med to fine, wet loose	17		3,10,10	
			18			
		Orange brown SILTY SAND (SM), med to fine, wet loose	19		2,16,46	flowing sand
		Grayish brown SANDY SILT (ML), fine sand, firm	20		4,8,14	
			21			
			22			

continued on sheet 2 of 3

Notes: STP samples taken at 18" intervals using a 140 lb drive hammer. Blow counts recorded for each 6 inches. Earth materials recorded at time and date of exploration and can vary with vertical and lateral extent. Well elevations based on Nolte and Associates, Inc. survey.

SFC Consultants

BORING AND WELL COMPLETION LOG
WELL MW-19
MONITORING WELL NETWORK
HILMAR, CALIFORNIA

Slotted casing
Solid casing
Filter pack
Grout or Bentonite

Figure **A-9-1**

Date Drilled:	Logged:	Elevation:	TOC	Driller	Drill Rig	Sheet:	Well No.
1/13/98	JBJ	91.13	93.83	V&W Drilling	BK-81	2 of 3	MW-19

Elev. (feet)	Litho Log	Description	Depth (feet)	Well Detail	Samples STP	Notes
		Modesto Formation:	20			
70			21			
			22			
			23			
			24			
		Gray brown SILTY CLAY (CL), damp, mod firm	25		5,10,22	
65			26			
			27			
			28			
			29			
		Gray brown SILTY CLAY (CL), dry, firm	30		4,14,34	
60			31			
			32			
			33			
		Lt gray brown CLAYEY SILT (ML), damp to moist firm to stiff	34		6,19,30	
			35			
55			36			
			37			
			38			
			39			
		Gray SILTY CLAY (CL), moist, soft	40		7,11,15	
			41			
			42			
			43			

Continued on sheet 3 of 3

Notes: STP samples taken at 18" intervals using a 140 lb driv hammer. Blow counts recorded for each 6 inches. Earth material recorded at time and date of exploration and can vary with vertical an lateral extent. Well elevations based on Nolte and Associates, Inc survey.

SFC Consultants

BORING AND WELL COMPLETION LOG
WELL MW-19
MONITORING WELL NETWORK
HILMAR, CALIFORNIA

Slotted casing
Solid casing
Filter pack
Grout or Bentonite

Figure **A-9-2**

Date Drilled:	Logged:	Elevation:	TOC	Driller	Drill Rig	Sheet:	Well No.
1/13/98	JBJ	87.51	91.84	V&W Drilling	BK-81	3 of 3	MW-19

Elev. (feet)	Litho Log	Description	Depth (feet)	Well Detail	Samples STP	Notes
		Modesto Formation:	40			
			41			
45			42			
			43			
			44			
		Gray brown SANDY SILT (ML) with clay, damp, firm	45		7,11,15	
			46			
40			47			
			48			
			49			
		Gray CLAYEY SILT (CL), damp, firm	50		9,10,18	
			51			
35			52			
			53			
			54			
			55			
		Orange brown SILTY SAND (SM), med to coarse, micaceous, loose	56		3,8,8	
30			57			
			58			
			59			
		Orange brown SILTY SAND (SM), med to coarse, micaceous, firm	60		3,22,30	

Bottom of boring 60 feet
Groundwater at 10 feet
Well completed 1/13/98

Notes: STP samples taken at 18" intervals using a 140 lb drive hammer. Blow counts recorded for each 6 inches. Earth materials recorded at time and date of exploration and can vary with vertical and lateral extent. Well elevations based on Nolte and Associates, Inc. survey.

SFC Consultants

BORING AND WELL COMPLETION LOG
WELL MW-19
MONITORING WELL NETWORK
HILMAR, CALIFORNIA

Slotted casing
Solid casing
Filter pack
Grout or Bentonite

Figure A-9-3

Date Drilled:	Logged:	Elevation:	TOC	Driller:	Drill Rig	Sheet:	Well No.
1/14/98	JBJ	92.61	94.79	V&W Drilling	BK-81	1 of 1	MW-20

Elev. (feet)	Litho Log	Description	Depth (feet)	Well Detail	Samples STP	Notes
		Fill/Topsoil: Dark brown SILTY SAND (SM)	0			
			1			
			2			
90			3			
			4			
			5			
		Modesto Formation Brown SILTY SAND (SM) med to coarse, moist loose	6		P,10,14	
			7			
85			8			
			9			
		Orange brown SILTY SAND (SM) med to coarse dense	10		10,20,30	
			11			
			12			
80		Orange brown SILTY SAND (SM) med to fine	13		9,10,16	
			14			
			15			
		Orange brown SILTY SAND (SM) med to coarse very dense	16		10,13,16	
			17			
75			18			
		Orange brown SILTY SAND (SM) med to coarse	19		12,13,14	
			20			
			21			
			22			

Notes:

Bottom of boring 20.5 feet
Groundwater at 5.0 feet
Well completed 1/12/98

Notes: STP samples taken at 18" intervals using a 144 lb drive hammer. Blow counts recorded for each 6 inches. Earth materials recorded at time and date of exploration and can vary with vertical and lateral extent. Well elevations based on Nolte and Associates, Inc. survey.

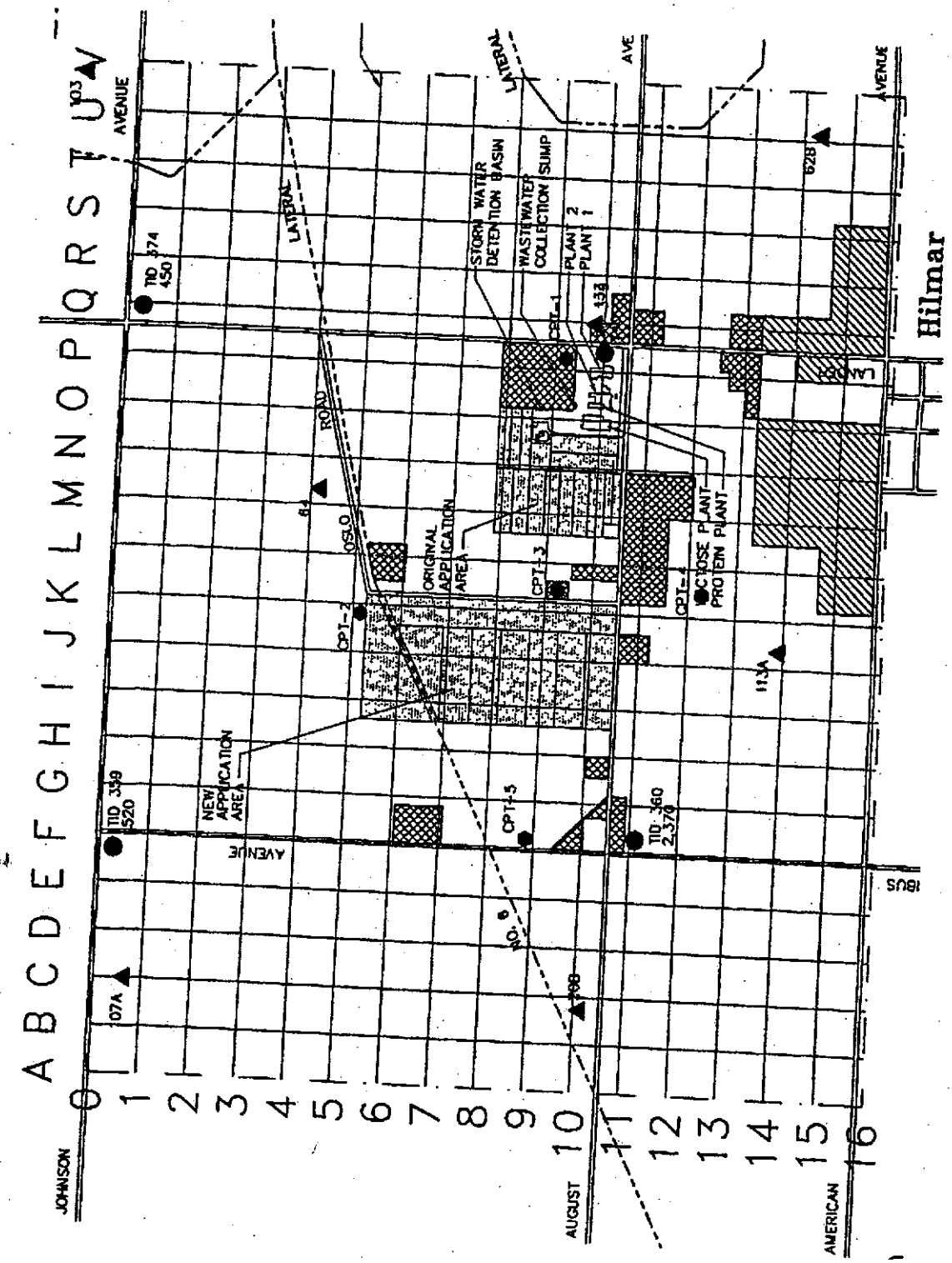
SFC Consultants

BORING AND WELL COMPLETION LOG
WELL MW-20
MONITORING WELL NETWORK
HILMAR, CALIFORNIA

Slotted casing
Solid casing
Filter pack
Grout or Bentonite

Figure A-10

TURLOCK IRRIGATION DISTRICT WELLS


Hilmar
JOHNSON
AUGUST
AMERICAN
AVENUE
AVE
LATERAL
ROAD
OSLO
NEW APPLICATION AREA
ORIGINAL APPLICATION AREA
STORM WATER DETENTION BASIN
WASTEWATER COLLECTION SUMP
PLANT 2
PLANT 1
CLOSE PLANT
PROTEIN PLANT
CPT-1
CPT-2
CPT-3
CPT-4
CPT-5
TID 374 450
TID 339 520
TID 360 2,370
107A
133
113A
628
NO. 6

TURLOCK IRRIGATION DISTRICT DRAINAGE WELL NO. 20B

MAP

PROFILE

WATER QUALITY: 650 EC
USGS NOT AVAILABLE

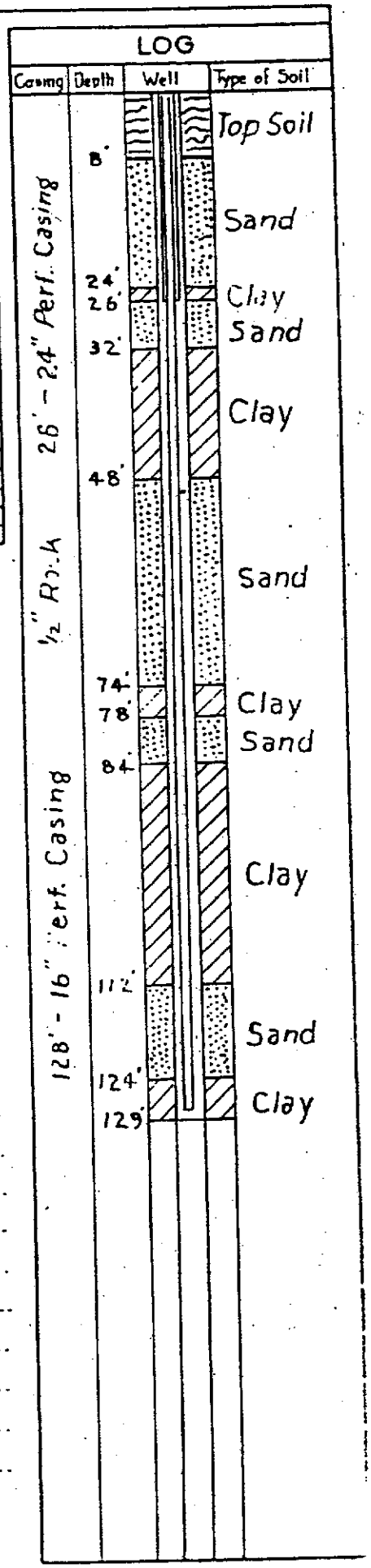
LOCATION S.E. ¼ Lot 33
Sec. 9 T 6 S R10E

DRILLED BY Osterberg & Carrell

DATE August 7 1958

REMARKS

1000 gpm 39 ft. DD
1200 gpm 45 ft. DD
1300 gpm 47.5 ft. DD



806

TURLOCK IRRIGATION DISTRICT DRAINAGE WELL NO. 107A

MAP

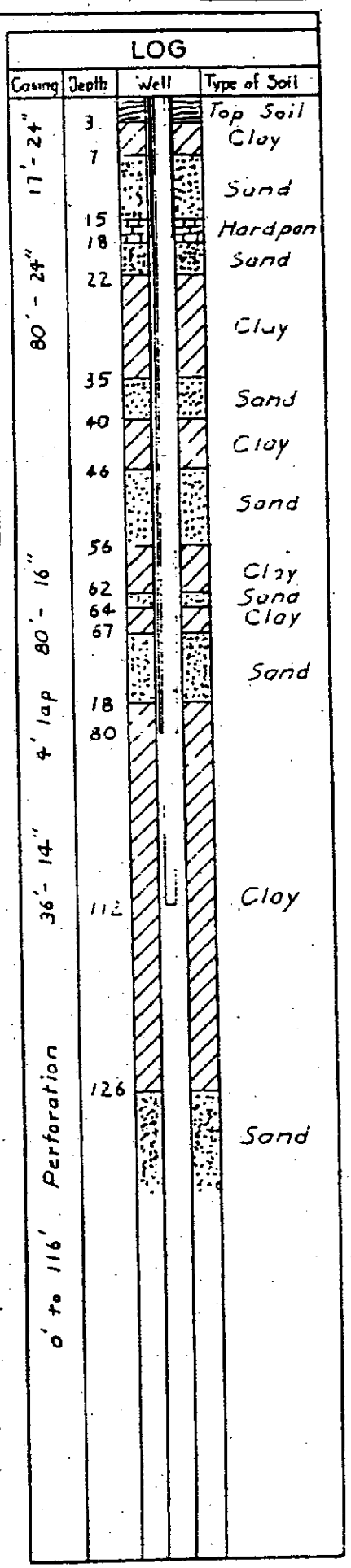
PROFILE

LOCATION N E 1/4 Sec. 9 T 6 S R 10 E

DRILLED BY Osterberg & Stewart

DATE Feb. 4 1965

REMARKS 2000 G.P.M. at 27' D.D.



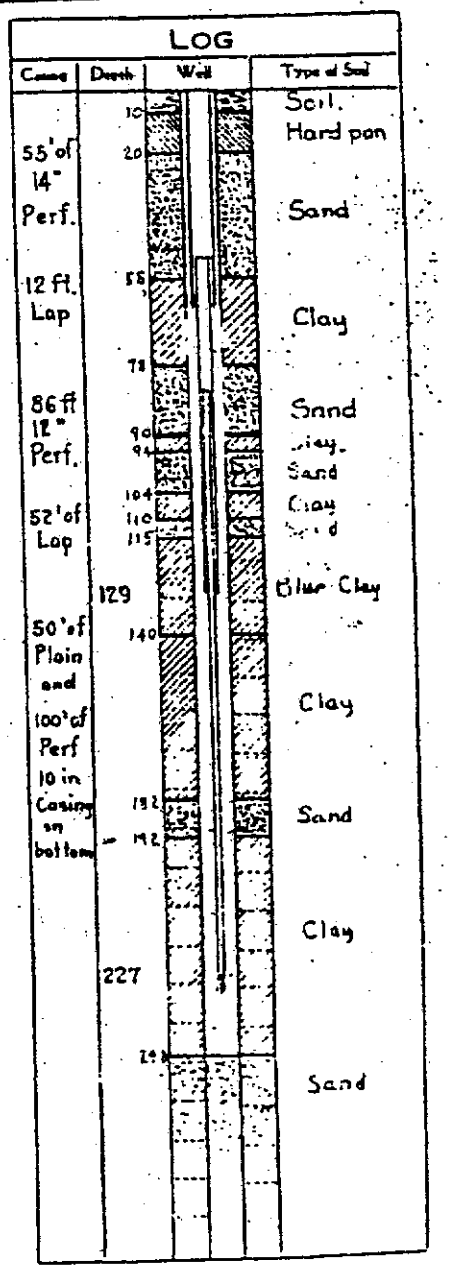
64.

TURLOCK IRRIGATION DISTRICT DRAINAGE WELL NO. 64.

MAP

PROFILE

LOG



OSCAR FARR.

LOCATION Sec 10-6-10. In SW1/4 of NE1/4

DRILLED BY: T.I.D. 87' deep.

DATE: March 1926.

14" pipe line

REMARKS: Gravel Envelope well.

Well Deepened in July 1935

Tested with air pump.

Test: 540 g.p.m. 15.5 ft D.D.
690 " 17.5 " "
800 " 19.0 " "

None

TURLOCK IRRIGATION DISTRICT DRAINAGE WELL NO. 67A

MAP

PROFILE

LOG

Casing	Depth	Type of Soil
	4'	Top Soil
21' of 24"		Sand
	10'	Silt
	12'	
Perf.		Sand
1-24" Shoe	18'	
112' of 16" Perf.		Clay
1-16" shoe	44'	Sand
	45'	Blue Clay
	52'	Sand
	68'	Blue Clay
	74'	Sand
	78'	Blue Clay
	86'	Sand
	100'	Blue Clay
	106'	Sand
	110'	Clay

LOCATION Lot No. 113
Section 15 T 6 S R 10 E
20 ft. S of well No. 67

DRILLED BY Osterburg & Carroll

DATE June 7 1958

REMARKS
License No. 87245

1700 GPM 60 ft. DD

TURLOCK IRRIGATION DISTRICT DRAINAGE WELL NO. 113A

MAP

PROFILE

WATER QUALITY: 540 EC
USGS NOT AVAILABLE

LOCATION SE ¼ of NW ¼
Section 15 T 6 S – R 10 E

DRILLED BY Osterberg & Carroll

DATE Feb. 15 1957

REMARKS Static water 6 Ft.

1800	GPM	36 ft.	D.D.
1700	"	34 "	"
1400	"	29 "	"
1050	"	28 "	"

Permit No. 8724

To replace well No. 113

LOG

Casing	Depth	Well	Type of Soil
24' of 24" single 12 gage Perf. Pack with ½" Rock	14'		Sand
			Clay
136' 18" single 12 gage Perf.	45' 46'		Sand
			Clay
	55'		
			Sand & Clay
	80'		
			Sand
	136'		

TURLOCK IRRIGATION DISTRICT DRAINAGE WELL NO. 133

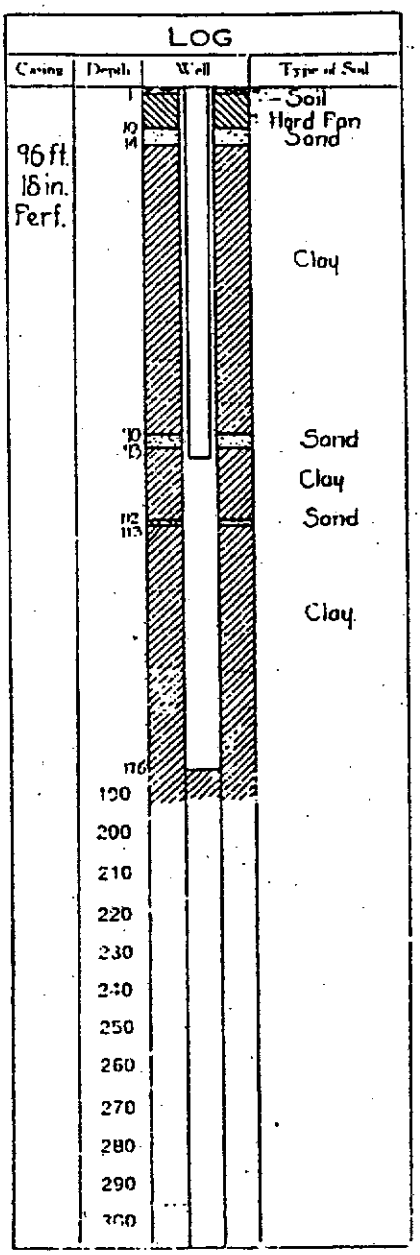
MAP

PROFILE

WATER QUALITY: NOT AVAILABLE
USGS NOT AVAILABLE

LOCATION *Hilmar Substation*

DRILLED BY: *T. I. D.*

DATE: *January 1937*

REMARKS: *10 yds rock*