Skeen 2-26-27 State SWD #1
Blue Spark Stimulation
ChevNo: NX4338 API #:30-015-41744
Operator: Chevron Midcontinent, L.P.
Location: Hobbs County: Eddy
Spud: 12/31/2013 Completion: 3/17/2014
Updated: KVDN 7/29/15, EAUI 7/31/15

Chevron USA Inc.
Mid-Continent Business Unit

NM OIL CONSERVATION
ARTESIA DISTRICT
AUG 18 2015
RECEIVED

Skeen 2-26-27 State #1 SWD Blue Spark Stimulation

Workover Procedure
Level 1 Well Work – Wireline Stimulation

Title	Name	Signature	Date
Workover Engineer	Bob Hall / Evan Asire		7/31/15
Workover Team Lead	Kyle Olree		7/31/15
Production Engineer	John Taxiarchou		

8/18/15
Accepted for record
NMOCD

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The purpose of this project is to simulate the injection intervals in the Skeen SWD using the Bluespark Tool, which is deployed on WL. This procedure is meant to be a guide only. It is up to the WSM, Workover Engineer and Production Engineer to make the decisions necessary to safely do what is best for the well.

Contacts:

Remedial Engineer	Bob Hall	432-687-7471 / 832-763-1161
Production Engineer	John Taxiarchou	432-687-7452 / 281-460-9143
D&C Supt.	Victor Bajomo	432-687-7953 / 432-202-3767
D&C Team Lead	Kyle Olree	432-687-7422 / 307-922-3098
ALCR	Emanuel Jimenez	575-631-9139
Operations Supervisor	Danny Lovell	575-390-0866
Archer Wireline	John Donald	432-634-3644
BlueSpark	Ben Catalano	432-248-1512

Well Status:
Active injector

Casing Information:
Conductor Casing: 20" 94# J-55 set at 80'
Surface Casing: 9-5/8" 40# HCK-55 set at 1508' with TOC at surface
Production Casing: 7" 26# C-110 set at 5206' with TOC at surface

Tubing and Rod Information:
Tubing String:
7" tubing hanger
4-1/2" SSTubing Pup Joint (1.46')
77 jt 4-1/2" 11.6# L-80 tubing
1 5.07" crossover
5 ½ On-Off tool ID 2.812"
5-1/2" Packer ID 3"
1 3-1/2" Pup Joint 6.12"
4" XN – Nipple ID 2.812
Wireline Guide ID 3"
EOT = 2498.2'

Wellbore Information:
2/2009: 2550-2580, 2632-2688, 2696-2712, 2730-2760, 2856-2890, 3082-3106, 3420-3432, 3584-3600, 3622-3628, 3896 -3920, 4030-4042, 4084-4104, 4136-4152, 4284-4306, 4706-4716, & 4932-4936
PBTD: 5120'
TD: 5601'

Recent Well History:
None

Other Important Information: Blue Spark tool must have fluid above it make sure we have 2% KCL on location in case we have to load hole. Gamma Ray tool must be less than 2.75 inches.

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Pre-work:

1. Utilize the rig move check list and complete electric line route survey with FMT.
2. Check anchors and verify that a pull test has been completed in the last 24 months.
3. Ensure location of & distance to power lines is in accordance with MCBU SWP. Complete an electrical variance and RUMS if necessary.
4. Ensure that location is of adequate build and construction.
5. **Ensure that elevators and other lifting equipment are inspected. Calliper all lifting equipment at the beginning of each day or when sizes change.**
6. When NU anything over and open wellhead (EPA, etc.) ensure the hole is covered to avoid dropping anything downhole.
7. Review H2S calculation radius of exposure.
8. Review JSA and identify hazards with crew. Visually inspect wellhead, casing, and tubing valves. Decide whether tubing and casing valves can be used or replaced as needed. Isolate hazardous energy. Bleed down well as necessary.
9. Any equipment installed at the wellhead (ID) is to be visually inspected by the WSM to insure that no foreign debris or other restrictions are present.
10. If wireline is to be used (I.e. perforating guns, collar locator, or logging tools) tools need to be callipered and reported on the daily WellView report.
11. Capture image of wellhead and tree rig up. Send to workover engineer prior to workover operations.

Expense Delegation: All expenses for this operation will be charged to the lease cost center number.
Cost Center: **UC000LYCX**

Procedure:

1. Mobilize Blue Spark tool and Archer WL. NU WL lubricator and test to 250/500 psi. Establish exclusion zone around WL unit and equipment. Load well down tubing with 2% KCl water to top off.

2. RIH with 2.75" gauge ring and weight bar to 2550', or past the end of the tubing/packer, then POOH.

3. RIH with a Gamma Ray tool and CCL. Run GR tool (tool OD must be less than 2.75"; slimhole options range from 1-1/16" to 2.5") from 2700' to 2500', correlating to Baker Hughes GR log dated 1-17-14 (contact workover engineer if additional log strip is needed). POOH with GR tool.

   Use new GR/CCL log to correlate additional runs.

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4. RIH with CCL and Blue Spark Tool to stimulate the perforation intervals from top to bottom: 2550-2580, 2632-2688, 2696-2712, 2730-2760, 2856-2890, 3082-3106, 3420-3432, 3584-3600, 3622-3628, 3896 - 3920, 4030-4042, 4084-4104, 4136-4152, 4284-4306, 4706-4716, & 4932-4936 using the recommended Blue Spark SOP. **Ensure fluid level is above Blue Spark tool.**

5. RDMO Archer WL and Blue Spark.

6. Clean location of materials, equipment, trash, and all outer miscellaneous items.

7. Notify ALCR and production engineer when workover is complete. Complete Wellwork Transfer of Ownership form and send to ALCR, Operations Manager, and Workover Engineer.

8. Leave job end date open (workover engineer will close out job in WV), but note in WellView on time log *****Final Report*****

9. Ensure all costs for services and equipment related to the job are documented in WellView on the appropriate day. Update wellbore schematic in WellView with full details of all equipment or materials remaining in the hole.

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STANDARD GUIDELINES

Maximum Anticipated H2S Exposures (RRC H9 / NM Rule 36)

All personnel on location must be made aware of each of the following values (values vary by field):

Maximum anticipated amount of H2S that an individual could be exposed to is 0 ppm
at the maximum anticipated escape volume (of wellbore gas) of 0 MCF/D
100 ppm Radius of Exposure is 0 feet.
500 ppm Radius of Exposure is 0 feet.

Elevators

At every tubing size change, the elevators must be calipered and all lifting equipment must be visually inspected for the correct sizing, and rechecked daily. The elevators must also be checked for proper sizing by placing a pony sub in the elevators. Prior to picking up power swivel, caliper and visually inspect elevators and bail on swivel. Checks are to be documented in the JSA and elevator log.

ND/NU

Prior to N/D, N/U operations, if only one mechanical barrier to flow will be in place, visual monitoring of well condition by the WSM is necessary for 30 minutes or more to ensure that the well is static ***before*** removing or replacing well control equipment. For all deviations to 2B policy, check that MOC for exemption from 2B policy is in place and applicable. During ND/NU operations with only one barrier to flow in-place, constant visual monitoring of well condition ***during ND/NU*** by the WSM is necessary.

Installed Equipment

Any and all equipment installed at the surface on the wellbore is to be visually inspected (internally) by the WSM prior to N/U to the wellhead by the service provider to ensure no debris or other potential restrictions are present. During any NU ops over an open wellhead (BOP, EPA, etc.), ensure the hole is covered to avoid dropping anything downhole.

Hazard ID

Identify hazards with the crew as they come up during the job. Stop and review and discuss JSAs.

Scale and Paraffin Samples

When removing rods and/or tubing from a well, collect samples of any paraffin and/or scale. When drilling, note, report and sample significant returns of scale or paraffin, or anything other significant returns. Assume that samples that come from different areas/environments in the well are different and require a different sample; e.g. top/bottom of well, inside outside of tubing. Always collect enough sets of samples for both Production and D&C Chemical Reps. Send any samples to Chemical Reps., both for

1) Production (many times Baker), as well as for
2) D&C (many times PetroPlex).

Discuss D&C's Chemical Rep's recommendations with Engineering, or simply implement as practical.

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Trapped Pressure

Recognize whether the possibility of trapped pressure exists, check for possible obstructions by:

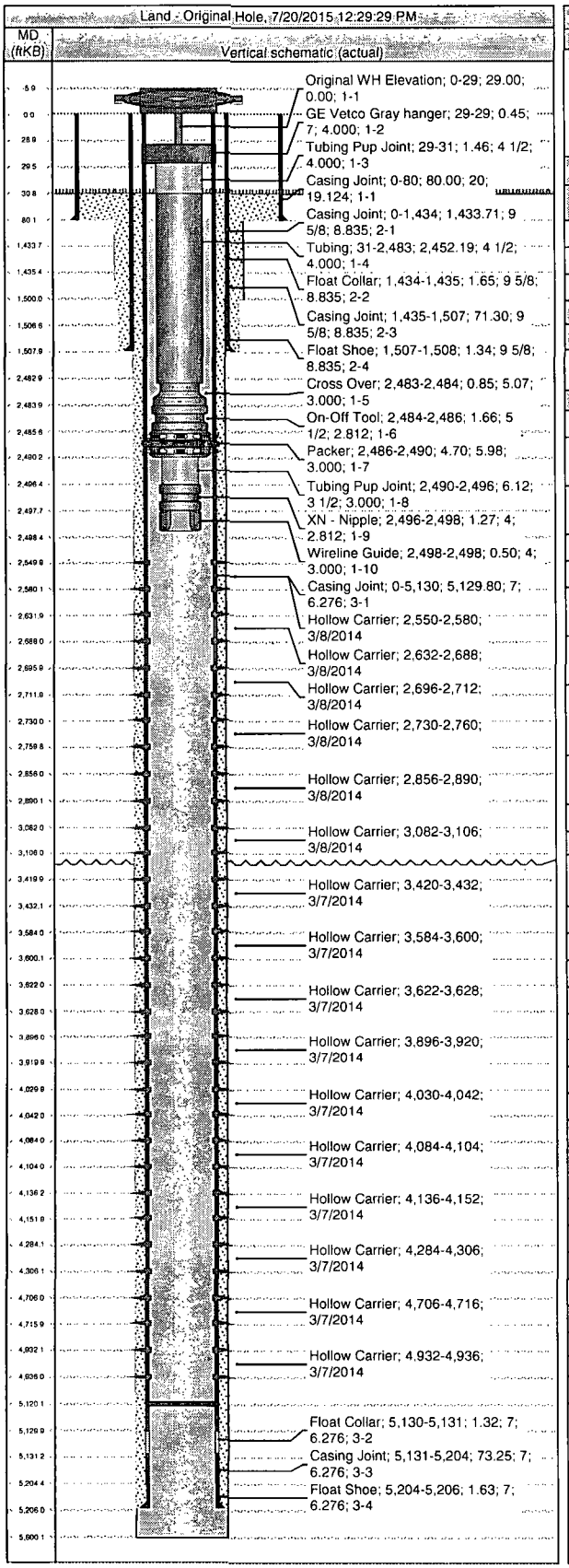
- Pumping through the fish/tubular – this is not guaranteed with an old fish as the possibility of a hole above the obstruction could yield inconclusive results
- Dummy run – make a dummy run through the fish/tubular with sandline, slickline, e-line or rods to verify no obstruction. If unable to verify that there is no obstruction above the connection to be broken, or if there is an obstruction:
- Hot Tap at the connection to check for pressure and bleed off
- Observe and watch for signs / indicators of pressure as connection is being broken. Use mud bucket (with seals removed) and clear all non-essential personnel from the floor.

Wireline

For all wireline and slickline jobs (except in new, cemented, tested and unperforated casing) install wireline packoff and lubricator. Follow Standard Guideline for installing equipment over wellhead. Test to 250 psi on the low end, and test on the high end based on SITP or max anticipated pressure. Establish exclusion zone around wellhead area. Observe and enforce radio silence as needed for explosives. All wireline tools are to be calipered and documented on a diagram prior to PU and RIH. This is critical information in the event of fishing operations.

Wellbore Schematic

Well Name	Lease	Field Name	Business Unit
SKEEN 2-26-27 ST SWD 001	Skeen 2-26-27	Delaware River	Mid-Continent



Job Details

Job Category	Start Date	Rig/Unit End Date
Completion	3/3/2014	3/5/2014
Completion	3/5/2014	3/8/2014
Completion	3/8/2014	3/11/2014
Completion	3/11/2014	3/17/2014

Casing Strings

Csg Des	OD (in)	Wt/Len (lb/ft)	Grade	Top Thread	Set Depth (MD) (ftKB)
Conductor	20	94.00	J-55		80
Surface	9 5/8	40.00	HCK-55		1,508
Production Casing	7	26.00	C-110	cdc	5,206

Tubing Strings

Tubing set at 2,498.2ftKB on <dttmrun>

Tubing Description	Run Date	String Length (ft)	Set Depth (MD) (ftKB)
Tubing		2,498.20	2,498.2

Item Des	Jts	OD (in)	Wt (lb/ft)	Grade	Len (ft)	Btm (ftKB)
Original WH Elevation	0	0.0			29.00	29.0
GE Vetco Gray hanger	1	7		Stainless	0.45	29.5
Tubing Pup Joint	1	4 1/2	11.60	Stainless	1.46	30.9
Tubing	77	4 1/2	11.60	L-80	2,452.19	2,483.1
Cross Over	1	5.07			0.85	2,484.0
On-Off Tool	1	5 1/2		Nickle plate	1.66	2,485.6
Packer	1	5.98		Nickle plate	4.70	2,490.3
Tubing Pup Joint	1	3 1/2	9.30	L-80 Nickle plate	6.12	2,496.4
XN - Nipple	1	4		Nickle plate	1.27	2,497.7
Wireline Guide	1	4			0.50	2,498.2

Perforations

Date	Top (ftKB)	Btm (ftKB)	Shot Dens (shots/ft)	Entered Shot Total	Zone & Completion
3/8/2014	2,550.0	2,580.0	6.0	180	Bone Spring, Original Hole
3/8/2014	2,632.0	2,688.0	6.0	336	Bone Spring, Original Hole
3/8/2014	2,696.0	2,712.0	6.0	96	Bone Spring, Original Hole
3/8/2014	2,730.0	2,760.0	6.0	180	Bone Spring, Original Hole
3/8/2014	2,856.0	2,890.0	6.0	204	Bone Spring, Original Hole
3/8/2014	3,082.0	3,106.0	6.0	144	Bone Spring, Original Hole
3/7/2014	3,420.0	3,432.0	6.0	72	Bone Spring, Original Hole
3/7/2014	3,584.0	3,600.0	6.0	96	Bone Spring, Original Hole
3/7/2014	3,622.0	3,628.0	6.0	36	Bone Spring, Original Hole
3/7/2014	3,896.0	3,920.0	6.0	144	Bone Spring, Original Hole
3/7/2014	4,030.0	4,042.0	6.0	72	Bone Spring, Original Hole
3/7/2014	4,084.0	4,104.0	6.0	120	Bone Spring, Original Hole
3/7/2014	4,136.0	4,152.0	6.0	96	Bone Spring, Original Hole
3/7/2014	4,284.0	4,306.0	6.0	132	Bone Spring, Original Hole
3/7/2014	4,706.0	4,716.0	6.0	60	Bone Spring, Original Hole
3/7/2014	4,932.0	4,936.0	6.0	24	Bone Spring, Original Hole

Other Strings

Run Date	Pull Date	Set Depth (ftKB)	Com

Report Printed: 7/20/2015

Version 2.0			WORKOVER - WELL APPROPRIATION - DETAIL OF COST ESTIMATE								Date:	7/31/2015
		Field / Area:	Hobbs	Well Name:	Skeen 2-26-27 State SWD #1							
Category	Code/SubCode	Code Detail	Description							VENDOR	EXPENSE	CAPITAL
010	74400001	01000	Rig - Daywork	4	days	0	$/day					
			Rig Costs Total								0	
040	66010100	04000	Company Labor	4	days	1750	$/day			Company WSM's only	7,000	
041	70000200	04100	Contract Labor	0	days	1750	$/day			Consultant WSM's	0	
				0	days	1000	$/day			DXP Safety Consultant	0	
				0	days	1000	$/day			Welders, Gangs, etc.	0	
			Supervision Total								7,000	
090	71901900	09000	Drilling Fluids								2,000	
100	71900500	10000	Materials, Supply, Repair Parts								1,000	
			Mud, Materials Total								3,000	
110	73400300	11000	Other Transportation Services	Item	Frac Days	Number of Loads	Cost per load	Total				
				Rig Move		0	$ 2,500.00	$ -				
				Water Haul		2	$ 300.00	$ 2,400.00				
				MISC.			$ -	$ -			2,400	
130	74400007	13000	Drill String Rentals and Bits	Item	Frac Days	Number on Loc.	Cost p.ft/p.day	Total				
				Work String		0	$ 0.08	$ -		Knight Oil Tools/ chem services		
				Frac String	7	0	$ 0.12	$ -		Knight Oil Tools		
				Workover Bits		0	$ 1,000.00	$ -		Schlumberger		
				MISC.		0		$ -			0	
140	72300100	14000	Surface / Well Service Equipment Rentals	Item	Frac Days	Number on Loc.	Cost per Day	Total				
			+550 BOPE			0	$ 800.00	$ -		D&L Meter		
			Rig Matt			0	$ 50.00	$ -		Key/Nabors		
			+225 Envirovat			0	$ 200.00	$ -		Envirovat		
			Cool Trailer			0	$ 150.00	$ -				
			PU/LD Mach.			0	$ 1,500.00	$ -				
			Pipe Racks			0	$ 50.00	$ -		Forklift Enterprises		
			+250 Trash Trailer			0	$ 125.00	$ -		B&L/TexMex		
			Frac Tanks (e		5	0	$ 50.00	$ -		Lobo/Chemical Serv./Key		
			Foam Air		1	0	$ 10,000.00	$ -				
			Rev. Unit			0	$ 1,350.00	$ -				
			Frac Vlv		6	0	$ 300.00	$ -				
			MISC.		1	0	$ 250.00	$ -		Forklift	0	
142	72300200	14200	Well Services	Item		Number on Loc.	Cost per Day	Total				
				PKR Hand		0	$ 850.00	$ -				
				PKR Rent		0	$ 1,000.00	$ -				
				Pipe Scan		0	$ 2,000.00	$ -				
				Hydrotest		0	$ 1,800.00	$ -				
				Fisherman		0	$ 5,000.00	$ -				
				MISC.		0	$ 1,300.00	$ -		Dickey Analytical	0	
143	74400009	14300	Coil Tubing	Coil Size		Number of Days	Cost per Day	Total				
				2		0.00	$ 50,000.00	$ -			0	
141	74400010	14100	Stimulation / Gravel Pack Materials & Service	Frac Per Quote								
				Acid/Scale Squeeze Per Quote, Sand Plugging (Blue Spark)							28,000	
153	74400014	15300	Perforating & Electric Line Services	Perforating/Logging etc.						Archer GR/CCL	8,000	
155	74400015	15500	Slickline Services	Injection Profiles/Set & Pull pkr profile plugs, etc.								
			Contract Rentals & Services Total								38,400	
150	74200300	15000	Solid Waste Disposal								0	
154	74200600	15400	Waste Water Disposal								0	
			Waste Disposal Total								0	
300	71900022	30000	Well Pipe Casing	Description						Cost per Foot		
			Production (Casing)	Size:		Feet:	0	Grade:				0
			Liner	Size:		Feet:	0	Grade:				0
301	71900021	30100	Well Pipe - Tubing	Description						Cost per Foot		
				Size:	2 7/8	Feet:	0	Grade:		8.64	0	
				Size:		Feet:		Grade:			0	
310	71900100	31000	Well Equipment	Description						Cost		
			Materials	Materials, Supply, Repair Parts							0	
			TAC	Well Equipment (Production Equipment; pump, polish Rod, TAC, Proudtion BHA)							0	
311	71900110	31100	Xmas Tree	Wellhead/Xmas Tree								0
			Wellhead	Referb/Rebuild								0
530	71500100	53000	Submersible Pumps & Equipment									
			Surface Lifting Equip	Description						Cost		
			Rod String	Size:	3/4"	Feet:	0	Grade:		3	0	
				Size:		Feet:		Grade:			0	
			Injection Pkr: (Downhole Eqpt Renta	Size:							0	
			Well Pump:	Size:	Well Equipment (Production Equipment; pump, polish Rod,Production BHA)					0	0	
			Other: (Unclassified Expense)	Size:	Surface Liftting Equiment And Materials						0	
			Tubulars & Lifting Equipment Total								0	0
320	74400024	32000	Cement & Cementing									
			Remediation	bbls:		Sacks:						
			Cement Total								0	0
400	74400025	40000	Fishing Costs								0	
540	74500021	54000	Site Work / Roads / Locations	Location Anchor Testing / Location Work for Frac / Road Work							0	
010	74400001	01000	Contingency								0	
930	94100700	93000	Capitalized G&A							12.5%		0
				Total Cost Estimate				48,400			48,400	0

BAKER HUGHES

COMPENSATED Z-DENSILOG™
COMPENSATED NEUTRON LOG
DIGITAL SPECTRALOG®
GAMMA RAY LOG

FILE NO. MD10844	COMPANY	CHEVRON USA INC
API NO. 30-015-41744	WELL	SKEEN 2 SWD #1
	FIELD	SWD BRUSHY CANYON
	COUNTY	EDDY STATE NEW MEXICO

Ver. 3.87
FINAL PRINT

LOCATION:
400' FSL & 1200' FWL

SEC 2 TWP 26S RGE 27E

OTHER SERVICES
RTEX/DMLL
S-CAL

PERMANENT DATUM	G.L.	ELEVATION	3218 FT
LOG MEASURED FROM	K.B.	31 FT	ABOVE P.D.
DRILL. MEAS. FROM	KELLY BUSHING		

ELEVATIONS:
KB 3249 FT
DF
GL 3218 FT

DATE		17-JAN-2014	
RUN	TRIP	1	1
SERVICE ORDER		635054	
DEPTH DRILLER		5378 FT	
DEPTH LOGGER		5304 FT	
BOTTOM LOGGED INTERVAL		5247 FT	
TOP LOGGED INTERVAL		200 FT	
CASING DRILLER		9.625 IN @ 1508 FT	
CASING LOGGER		1505 FT	
BIT SIZE		8.75 IN	
TYPE OF FLUID IN HOLE		CUT BRINE	
DENSITY	VISCOSITY	9.1 LB/G	29 CP
PH	FLUID LOSS	11	9 C3
SOURCE OF SAMPLE		CIRCULATION TANK	
RM AT MEAS. TEMP.		0.083 OHMM @ 58.32 DEGF	
RMF AT MEAS. TEMP.		0.062 OHMM @ 58.32 DEGF	
RMC AT MEAS. TEMP.		0.104 OHMM @ 58.32 DEGF	
SOURCE OF RMF	RMC	CALCULATED	CALCULATED
RM AT BHT		0.048 OHMM @ 106 DEGF	@
TIME SINCE CIRCULATION		12 HOURS	
MAX. RECORDED TEMP.		106 DEGF	
EQUIP. NO.	LOCATION	HL 5707	MIDLAND TX
RECORDED BY		J. ANTEE	
WITNESSED BY		J. AKIN / J. WHITE	

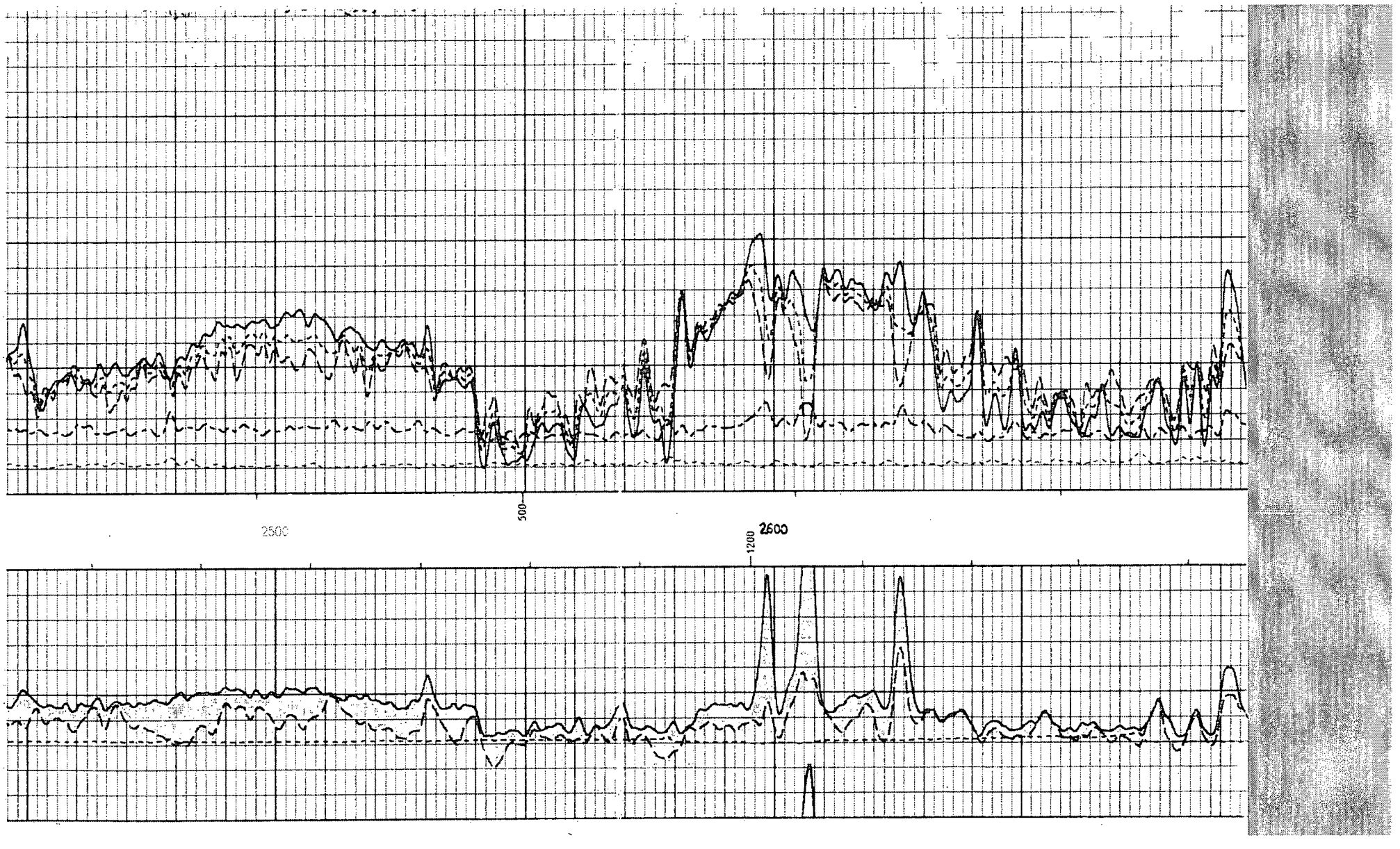
D00595328

CURVE MEASURE POINT OFFSET

CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
CALX	55.50	GR	72.75	TEN	0.00	ZDNC	54.75
CHC	55.75	KTH	72.75	ZCOR	54.75		

Presentation : hl6707:/dat1a/md10844/zdl-cn-2.fvpdf [2"/100' Scale]
Plot Interval : 185 - 5308 Feet

Data File 1 : F1 : hl6707:/dat1a/md10844/n87ca02.xtf
Created On : Jan 17 05:37:54 2014
Company : CHEVRON U.S.A. INC
Well : SKEEN 2 SWD 1
Field : SWD BRUSHY CANYON
File Interval : 185 - 5305 Feet
OCT : n87ca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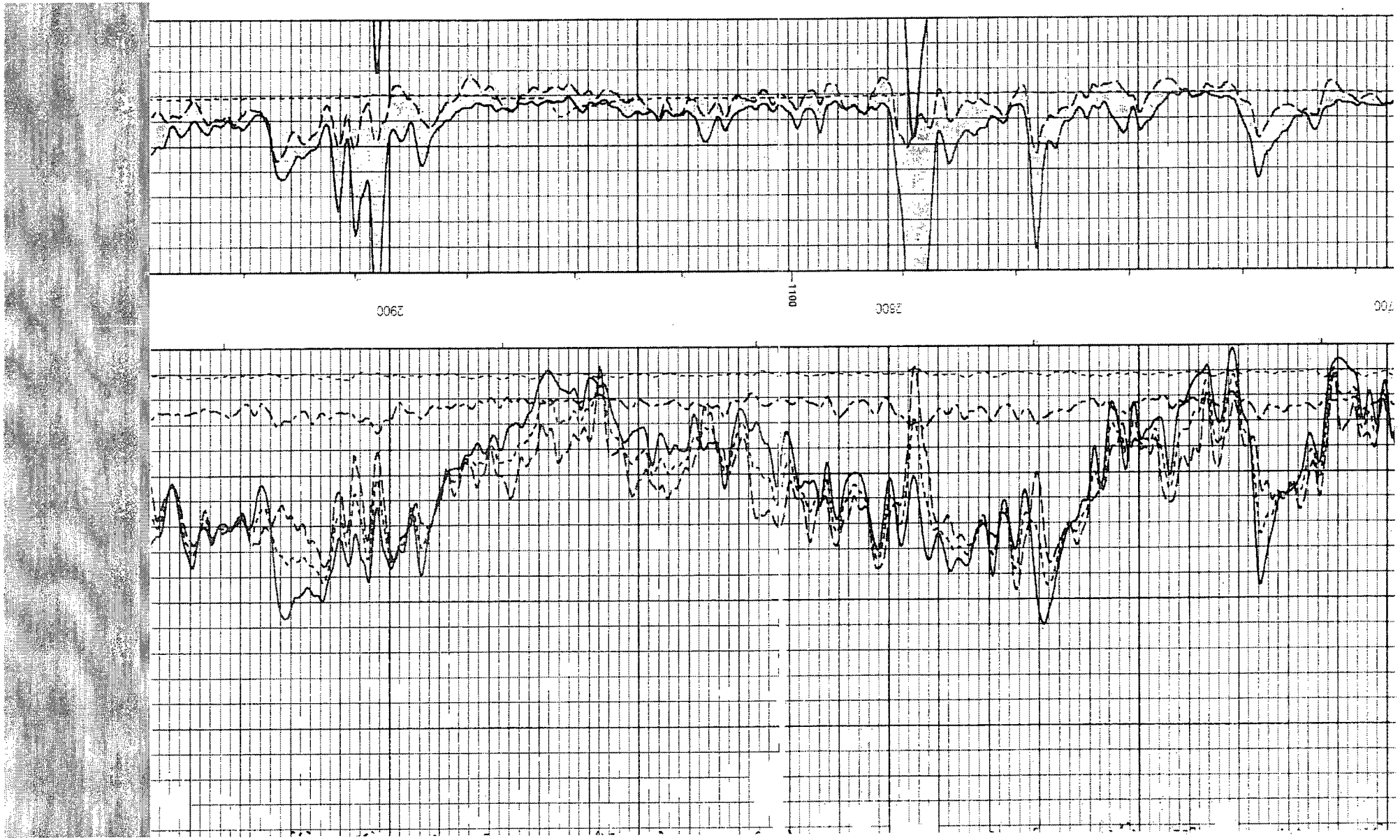
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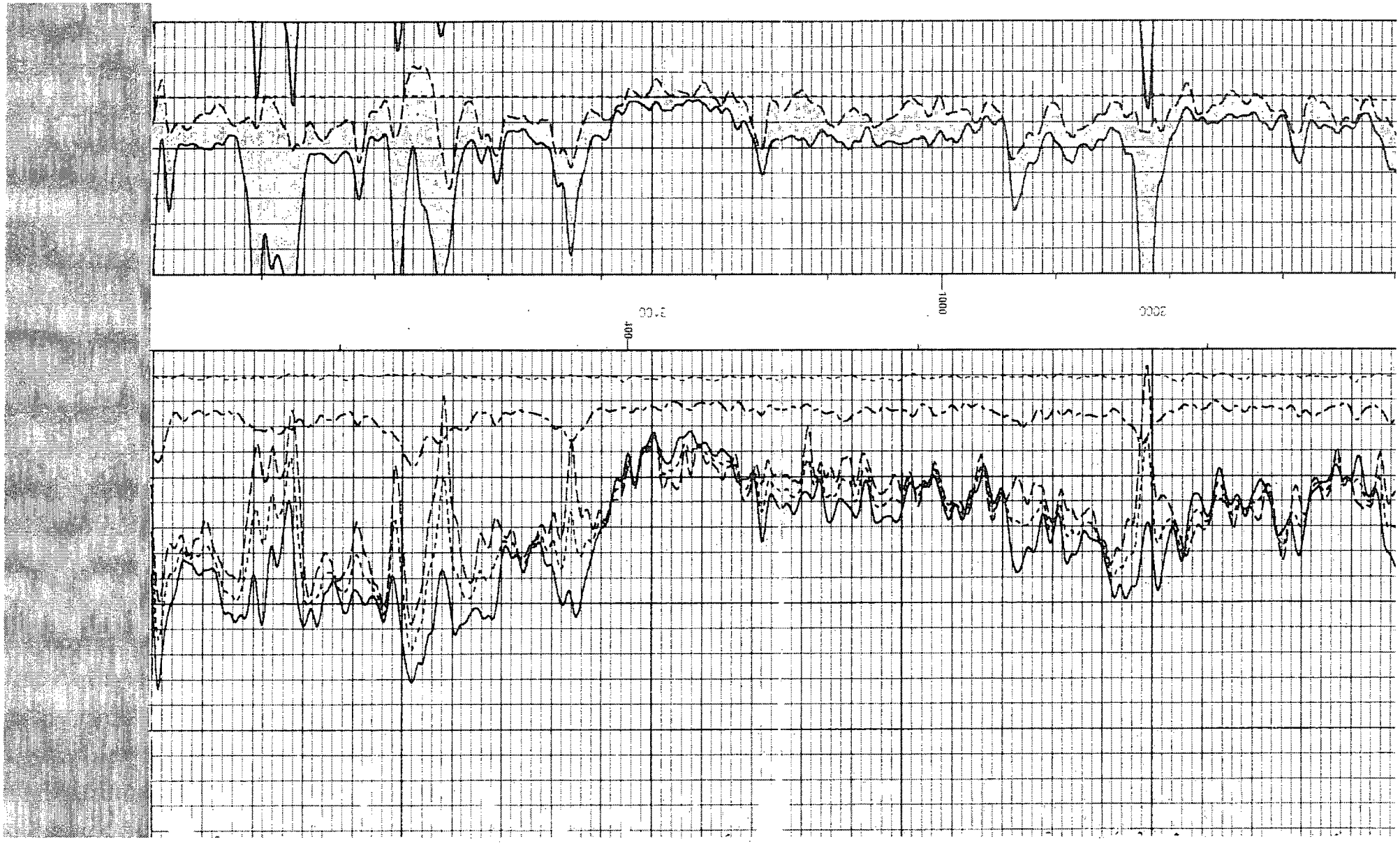

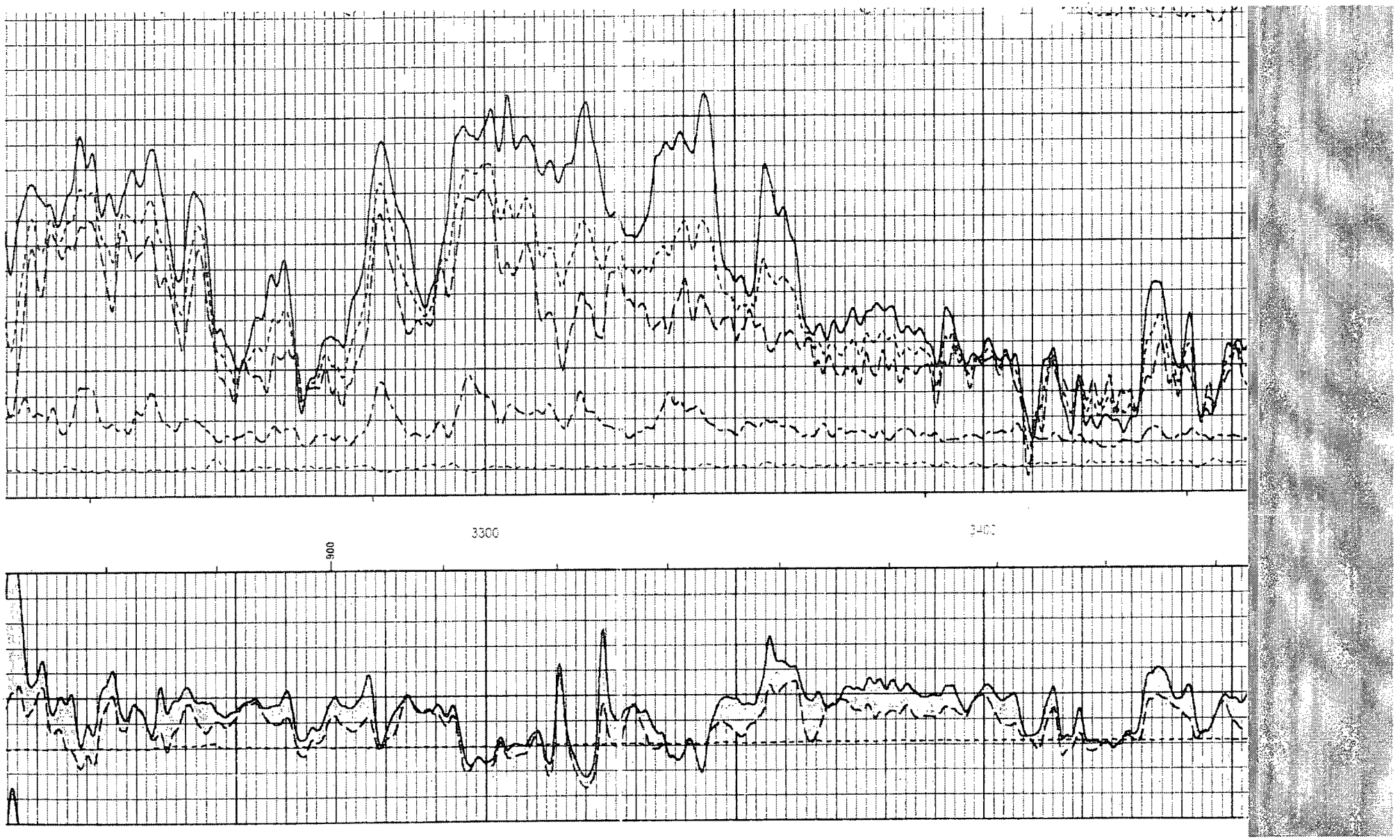
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