

DATE 8.25.11 SUSPENSE ENGINEER TW. LOGGED IN 8.25.11 TYPE IPI APP NO. 112374873 7

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

1220 South St. Francis Drive, Santa Fe, NM 87505



Basic Energy Services
Belco #2

ADMINISTRATIVE APPLICATION CHECKLIST 30-015-25433

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

Operator / Applicant Name:

Basic Energy Services LP

Lease / Well Name :

Belco St. # 2

API # 3001525433

[1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Simultaneous Dedication
☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
☐ WFX ☐ PMX ☐ SWD ☒ IPI ☐ EOR ☐ PPR

[D] Other: Specify _____

[2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or ☐ Does Not Apply

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners

[B] ☐ Offset Operators, Leaseholders or Surface Owner

[C] ☐ Application is One Which Requires Published Legal Notice

[D] ☐ Notification and/or Concurrent Approval by BLM or SLO
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ☐ Waivers are Attached

[3] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

David Alvarado

Print or Type Name

Signature

SENM Fluid District Mgr

Title

08-23-2011

Date

david.alvarado@basicenergyservices.com
e-mail Address

2540-3680
0.42

SWD-1292
508
IPI-
7056

Basic Energy Services LP

500 W. Illinois, Suite 100
Midland Texas 70702

August 19, 2011

New Mexico Oil Conservation Division
Engineering Bureau
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Attn: Terry G. Warnell EMNRD

RE: Request for Increase in Maximum Allowable Surface Injection Pressure
Belco St. # 2
2310' FNL 1980' FWL
Unit Letter "F", Section 20, T23S R28E

Basic Energy Services LP respectfully requests approval to increase the maximum allowable surface injection pressure on its Belco St. # 2 SWD well.

Attached please find the following:

- 1) Step-rate test analysis
- 2) Current water disposal permit SWD- 1292.
- 3) Log section covering the injection interval
- 4) Current wellbore schematic
- 5) Form C-103 request for increase in allowable surface injection pressure.

As shown with the attached analysis, it has been determined that the fracture extension pressure at surface is 1,106 psi . Applying a safety factor of 50 psi, Basic Energy Services LP respectfully requests approval to increase the maximum allowable surface injection pressure to 1,056 psi from the current maximum allowable pressure of 508 psi.

Thank you,



David Alvarado

Basic Energy Services LP
SENM District Fluids Manager

Step Rate Test
15-Aug-11

Basic Energy Services, LLC
Well: Belco State No. 2
Field:

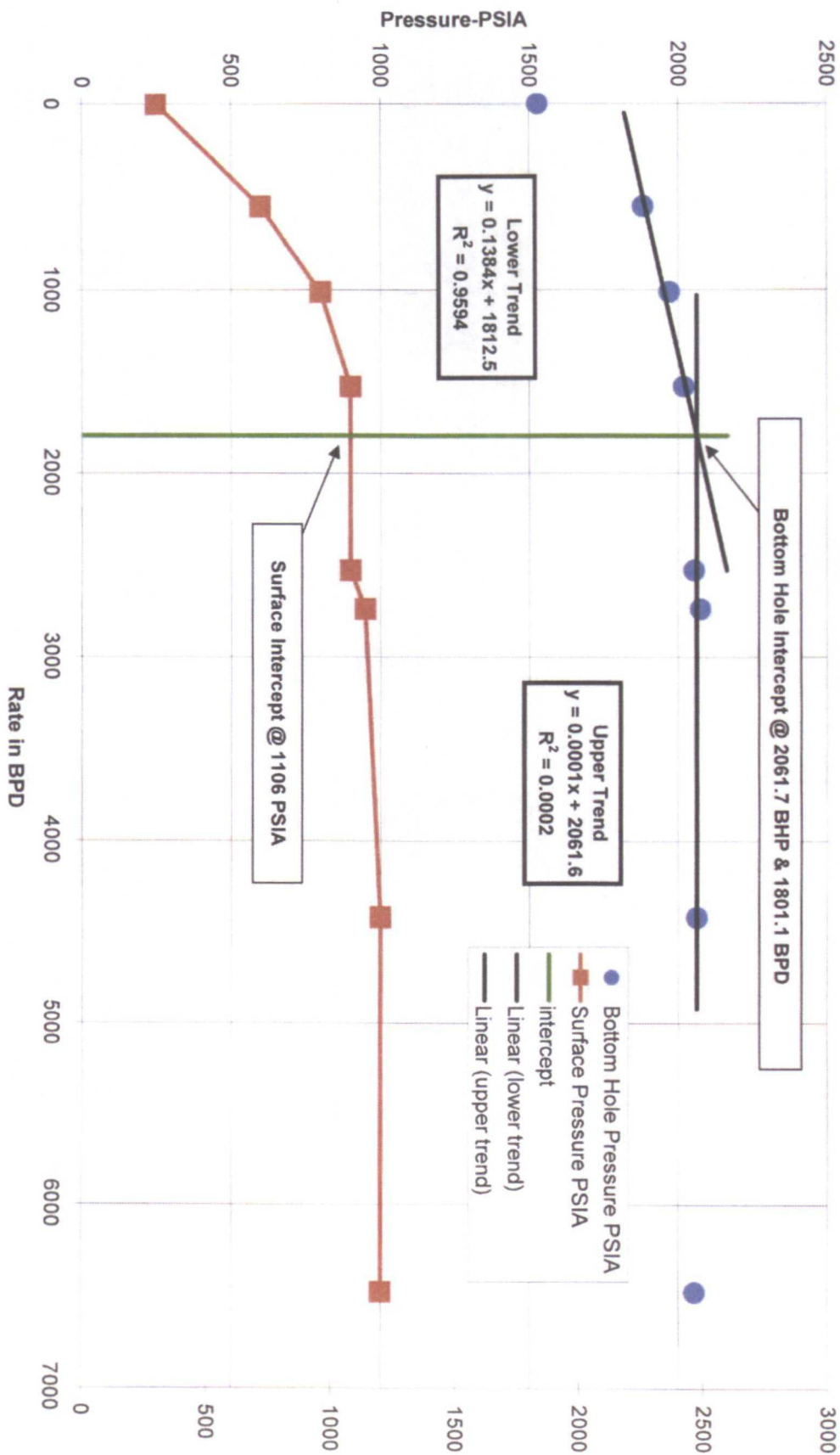
Location: Eddy County, NM

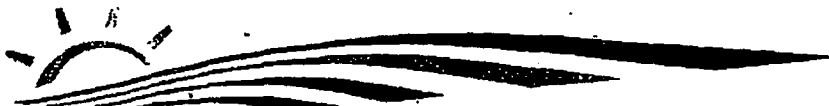


	S Time	E Time	D Time	Last Rate	Step	BHP	Surf	Cum	Delta	Avg.	Lower	Upper
			Min	BPD	BPD	PSIA	PSIA	BBL	BBL	BPD	Trend	Trend
1.	9:41 AM	10:30 AM	49	0	0	1527.1	250	0	0	0		
2	10:30 AM	11:00 AM	30	500	500	1880.4	600	11.5	11.5	552	552	
3	11:00 AM	11:30 AM	30	1000	500	1968.8	800	32.6	21.1	1013	1012.8	
4	11:30 AM	12:00 PM	30	1500	500	2016.9	900	64.5	31.9	1531	1531.2	
5	12:00 PM	12:30 PM	30	2500	1000	2051.9	900	117.2	52.7	2530		2530
6	12:30 PM	1:00 PM	30	3500	1000	2073.2	950	174.3	57.1	2741		2741
7	1:00 PM	1:30 PM	30	4500	1000	2060.9	1000	266.3	92	4416		4416
8	1:30 PM	2:00 PM	30	6500	2000	2051.6	1000	401.1	134.8	6470		
9	2:16 PM	2:31 PM	15	0		2035	850	401.1	0	0		
10												
11												
12												
13												
14												
15												
16												

0.1384 1812.5
0.0001 2061.6
Intersect 1801.15691 BPD
BHP PSI 2061.78012 PSIA

Basic Energy Services, LLC
 Belco State No. 2
 Step Rate Chart 15-Aug-11





New Mexico Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

John H. Bemis
Cabinet Secretary-Designate

Brett F. Woods, Ph.D.
Deputy Cabinet Secretary

Jami Bailey
Division Director
Oil Conservation Division



Administrative Order SWD-1292
July 5, 2011

ADMINISTRATIVE ORDER OF THE OIL CONSERVATION DIVISION

Under the provisions of 19.15.26.8B NMAC, Basic Energy Services, LP seeks an administrative order to utilize its Belco Well No. 2 (API 30-015-25433) located 2310 feet from the North line and 1980 feet from the West line, Unit Letter F of Section 20, Township 23 South, Range 28 East, NMPM, Eddy County, New Mexico, for produced water disposal purposes.

THE DIVISION DIRECTOR FINDS THAT:

The application has been duly filed under the provisions of 19.15.26.8B NMAC and satisfactory information has been provided that affected parties as defined in said rule have been notified and no objections have been received within the prescribed waiting period. The applicant has presented satisfactory evidence that all requirements prescribed in 19.15.26.8 NMAC have been met and the operator is in compliance with 19.15.5.9 NMAC.

IT IS THEREFORE ORDERED THAT:

The applicant, Basic Energy Services, LP, is hereby authorized to utilize its Belco Well No. 2 (API 30-015-25433) located 2310 feet from the North line and 1980 feet from the West line, Unit Letter F of Section 20, Township 23 South, Range 28 East, NMPM, Eddy County, New Mexico, for disposal of oil field produced water (UIC Class II only) into the Delaware Mountain Group through perforations from 2540 feet to 3680 feet through lined tubing and a packer set within 100 feet of the permitted disposal interval.

Prior to commencing disposal, the well shall be plugged back with cast iron bridge plug and cement to within 200 feet below the lowermost permitted disposal interval.

IT IS FURTHER ORDERED THAT:

The operator shall take all steps necessary to ensure that the disposed water enters only the proposed disposal interval and is not permitted to escape to other formations or onto the



surface.

After installing tubing, the casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge or an approved leak detection device in order to determine leakage in the casing, tubing, or packer. The casing shall be pressure tested from the surface to the packer setting depth to assure casing integrity.

The well shall pass an initial mechanical integrity test ("MIT") prior to initially commencing disposal and prior to resuming disposal each time the disposal packer is unseated. All MIT testing procedures and schedules shall follow the requirements in Division Rule 19.15.26.11A. NMAC.

The wellhead injection pressure on the well shall be limited to **no more than 508 psi**. In addition, the disposal well or system shall be equipped with a pressure limiting device in workable condition which shall, at all times, limit surface tubing pressure to the maximum allowable pressure for this well.

The Director of the Division may authorize an increase in tubing pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the disposed fluid from the target formation. Such proper showing shall be demonstrated by sufficient evidence including but not limited to an acceptable Step-Rate-Test.

The operator shall notify the supervisor of the Division's district office of the date and time of the installation of disposal equipment and of any MIT test so that the same may be inspected and witnessed. The operator shall provide written notice of the date of commencement of disposal to the Division's district office. The operator shall submit monthly reports of the disposal operations on Division Form C-115, in accordance with Division Rules 19.15.26.13 and 19.15.7.24 NMAC.

Without limitation on the duties of the operator as provided in Division Rules 19.15.29 and 19.15.30 NMAC, or otherwise, the operator shall immediately notify the Division's district office of any failure of the tubing, casing or packer in the well, or of any leakage or release of water, oil or gas from around any produced or plugged and abandoned well in the area, and shall take such measures as may be timely and necessary to correct such failure or leakage.

The injection authority granted under this order is not transferable except upon division approval. The division may require the operator to demonstrate mechanical integrity of any injection well that will be transferred prior to approving transfer of authority to inject.

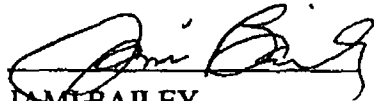
The division may revoke this injection permit after notice and hearing if the operator is in violation of 19.15.5.9 NMAC.

The disposal authority granted herein shall terminate two years after the effective date of this order if the operator has not commenced injection operations into the subject well. One year after the last date of reported disposal into this well, the Division shall consider the well abandoned, and the authority to dispose will terminate *ipso facto*. The Division, upon written

request mailed by the operator prior to the termination date, may grant an extension thereof for good cause.

Compliance with this order does not relieve the operator of the obligation to comply with other applicable federal, state or local laws or rules, or to exercise due care for the protection of fresh water, public health and safety and the environment.

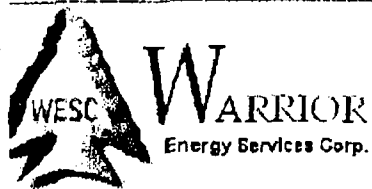
Jurisdiction is retained by the Division for the entry of such further orders as may be necessary for the prevention of waste and/or protection of correlative rights or upon failure of the operator to conduct operations (1) to protect fresh or protectable waters or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing, terminate the disposal authority granted herein.



JAMIE BAILEY
Director

JB/wvj

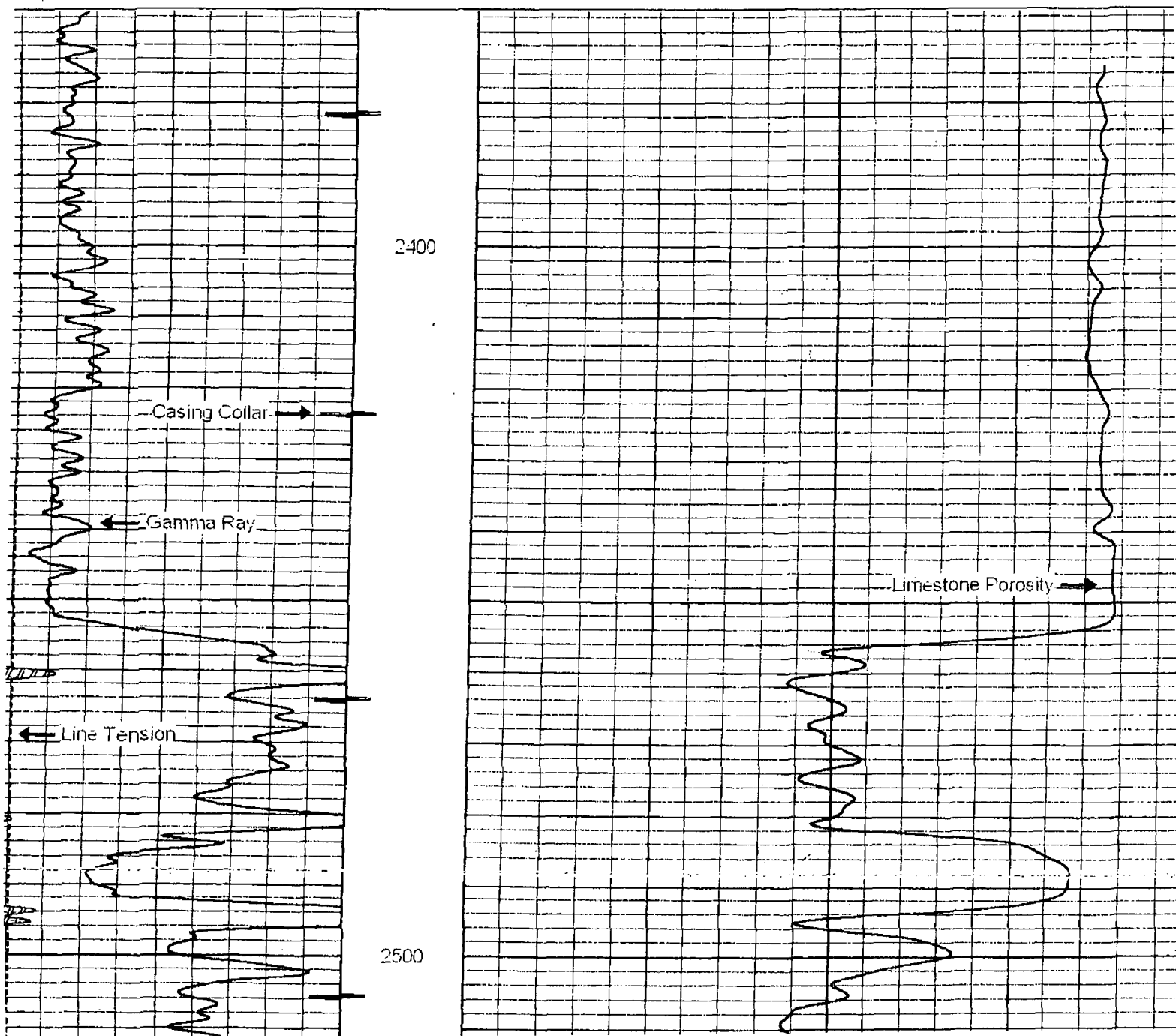
cc: Oil Conservation Division – Artesia

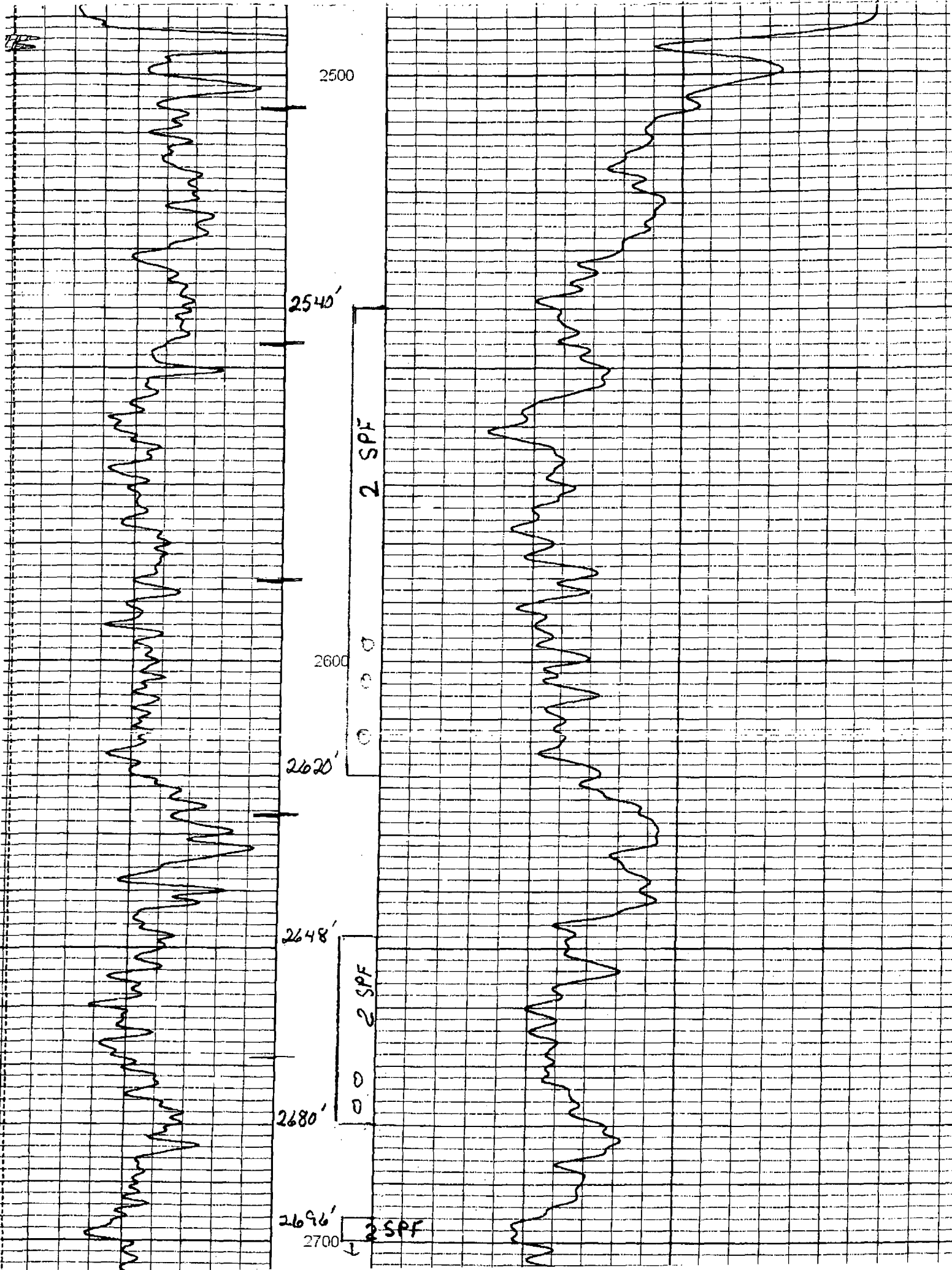


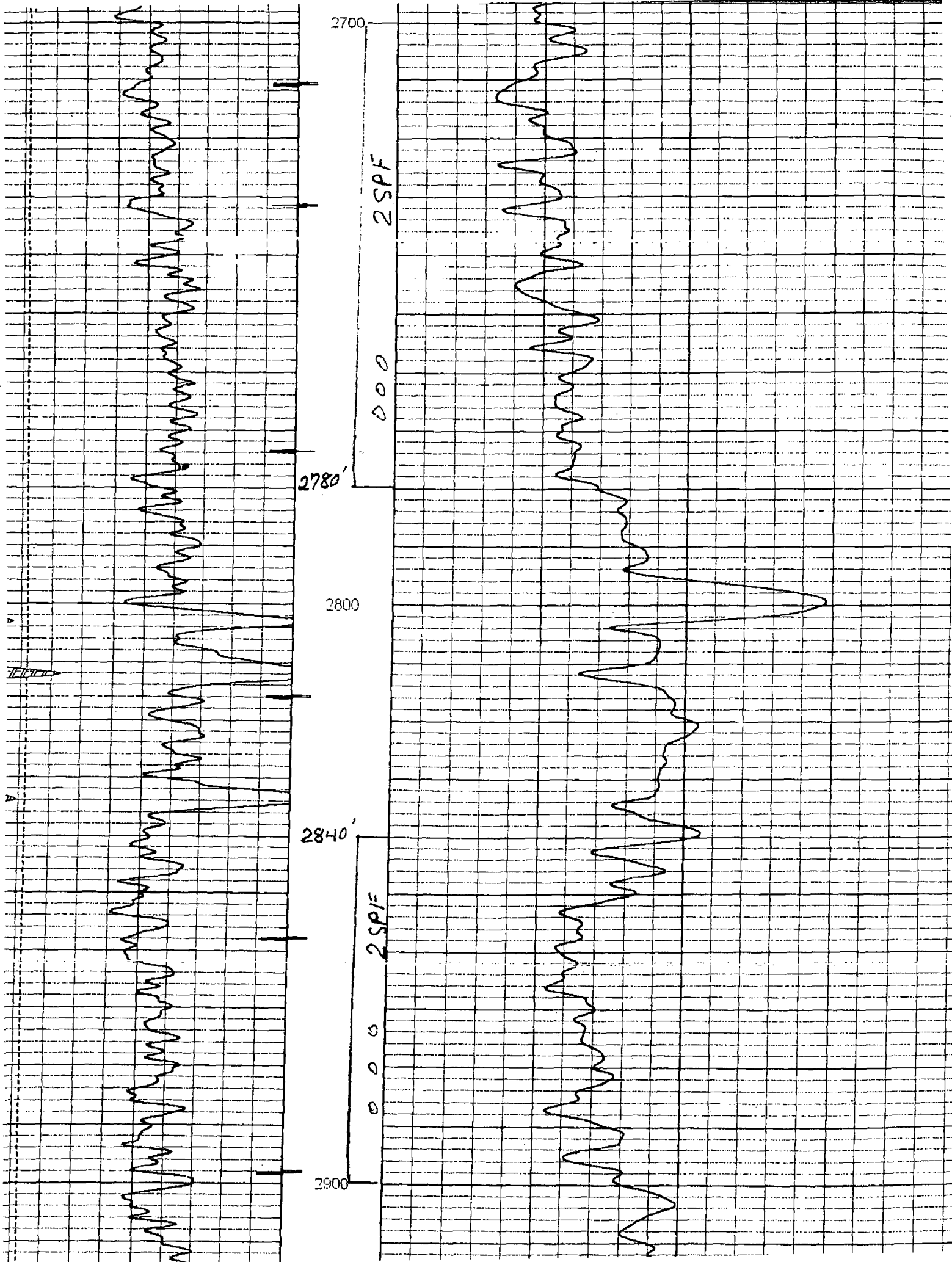
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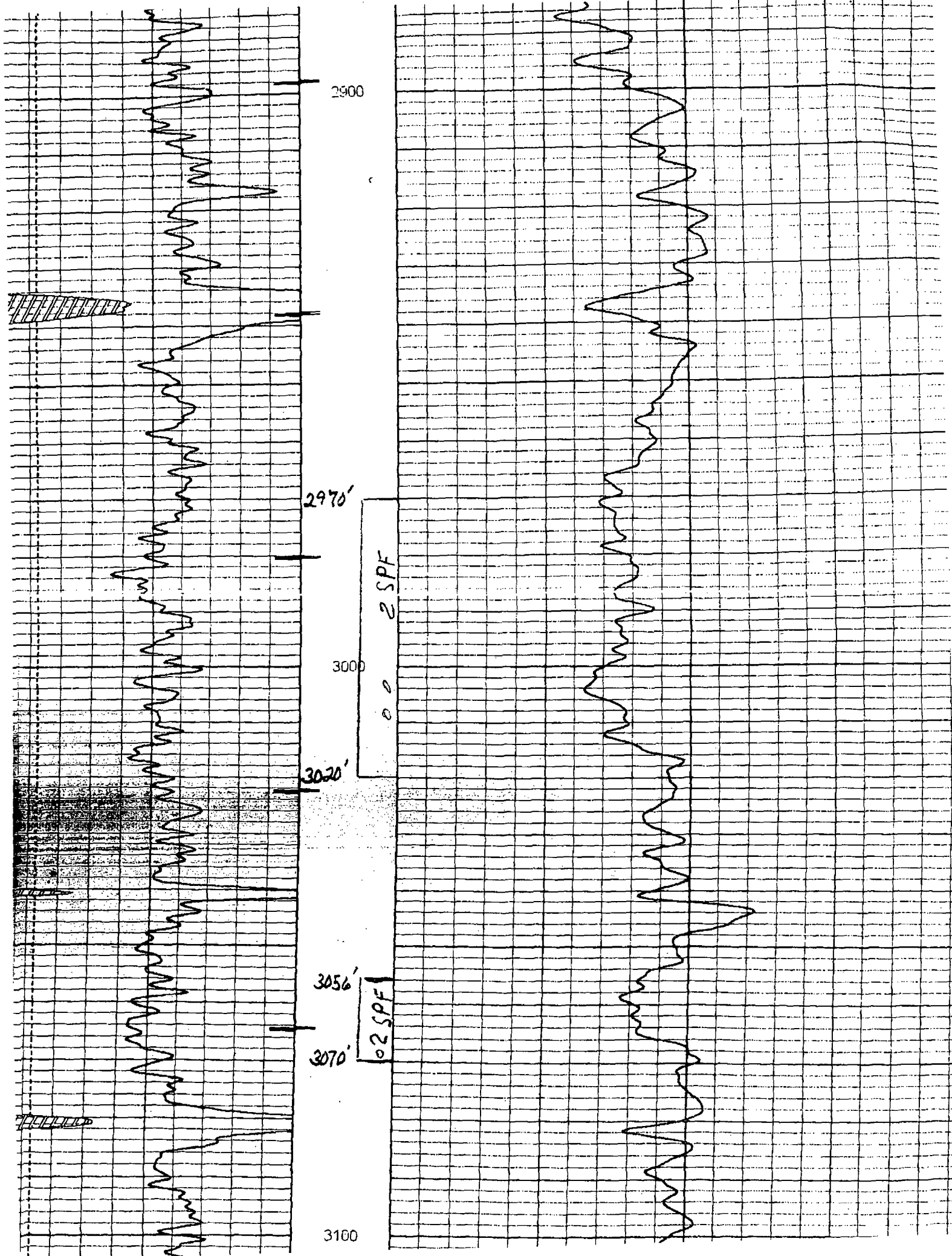
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Dataset Creation: Wed Jul 20 11:03:39 2011
Charted by: Depth in Feet scaled 1:240

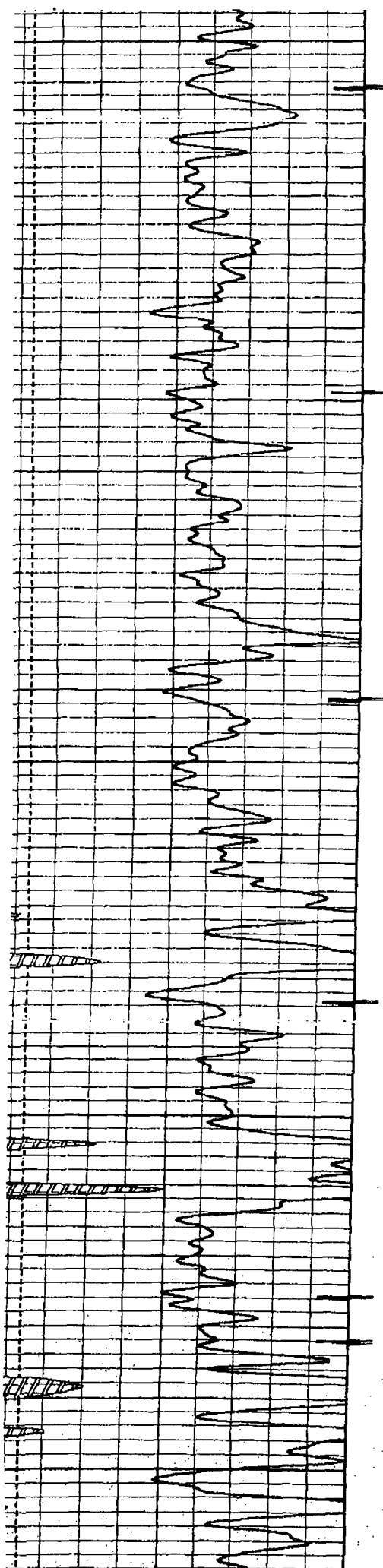
Gamma Ray (GAPI)	100	0	CCL	5	30	Limestone Porosity (pu)
BU Gamma Ray (GAPI)	200				70	Backup Limestone Porosity (pu)
Collar Locator	0					
Line Tension (lb)	4000					











3100

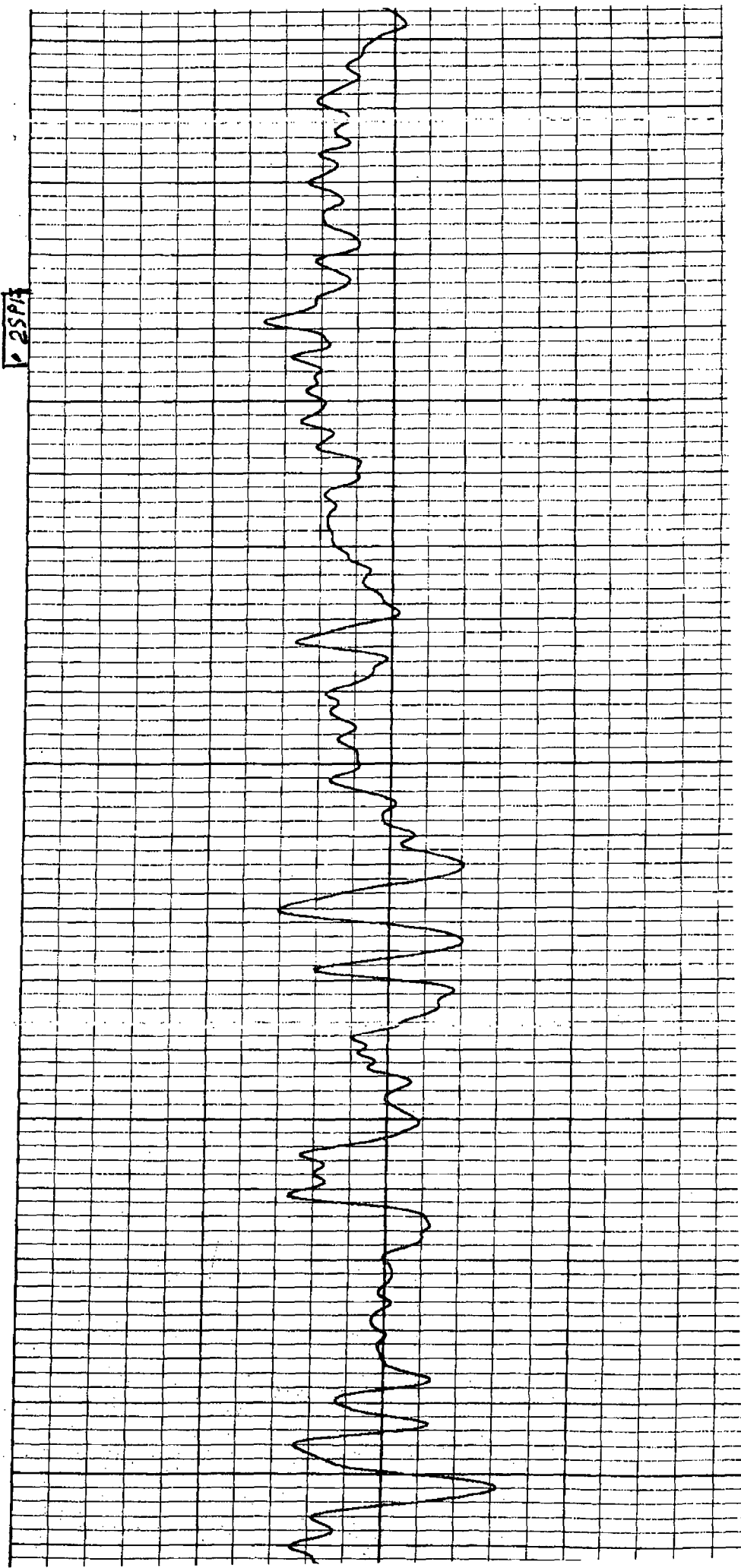
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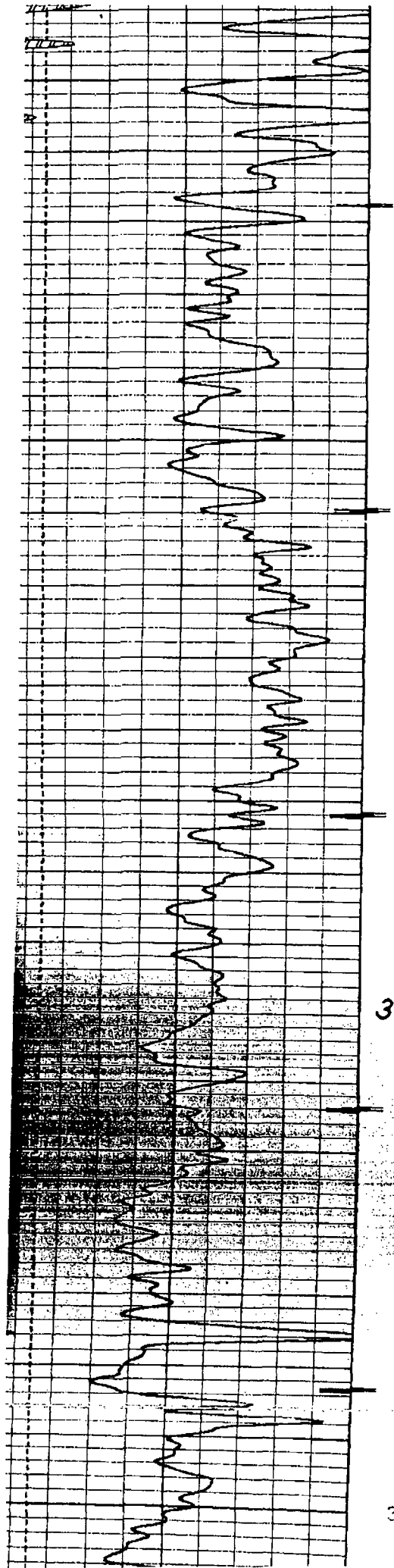
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3300

2594





3300

3354'

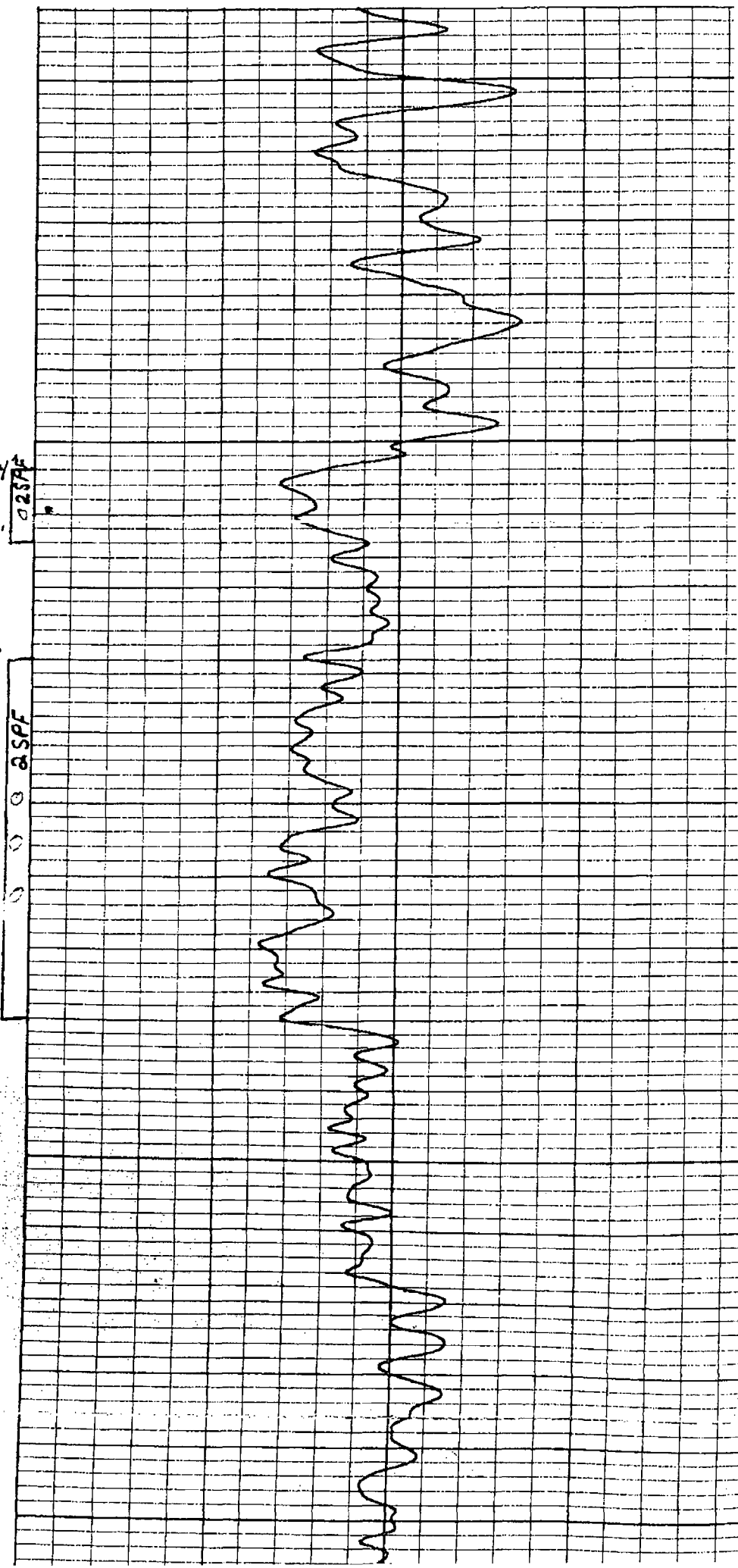
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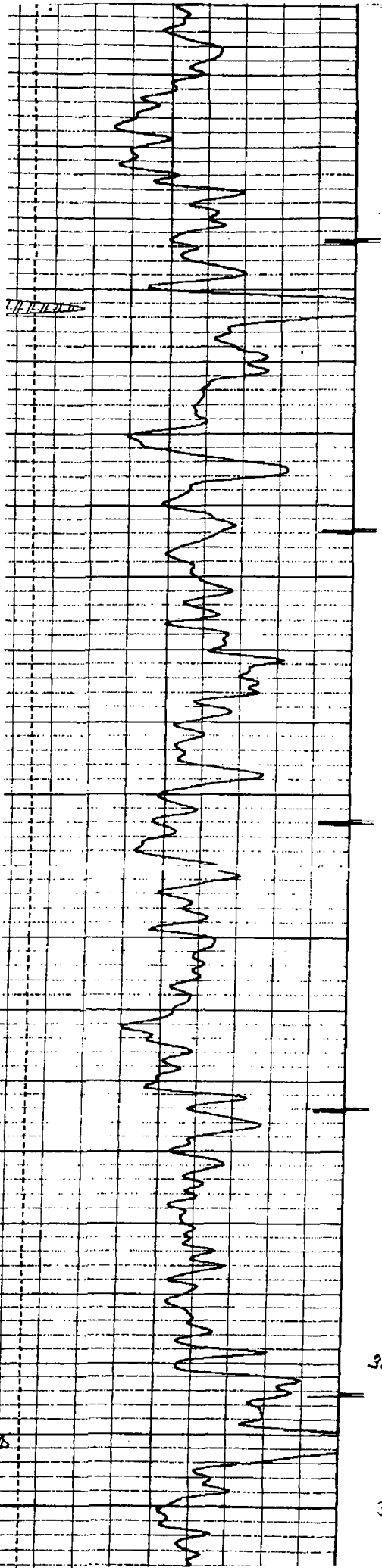
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3400

3430'

3500





3500

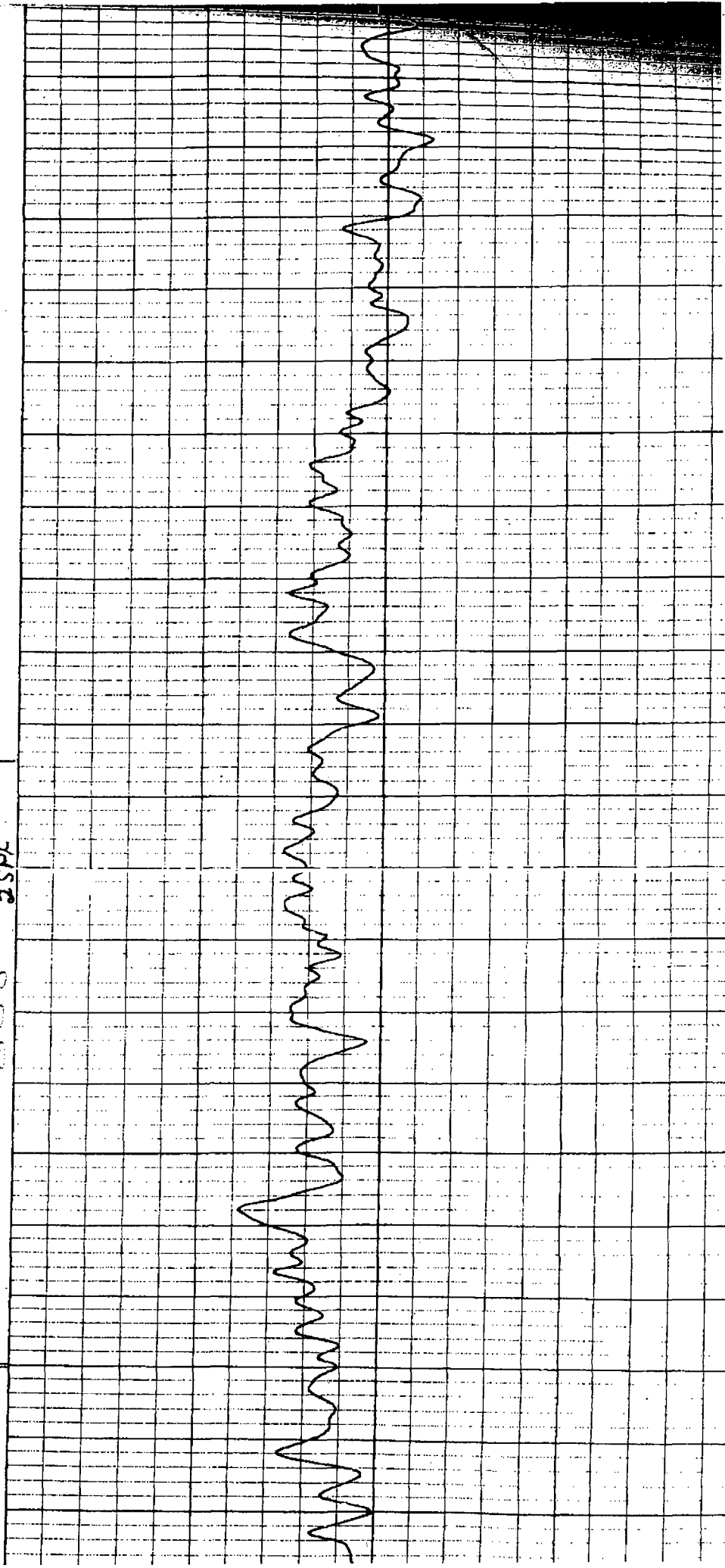
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3600

2 SPF

0
0
0

3680'

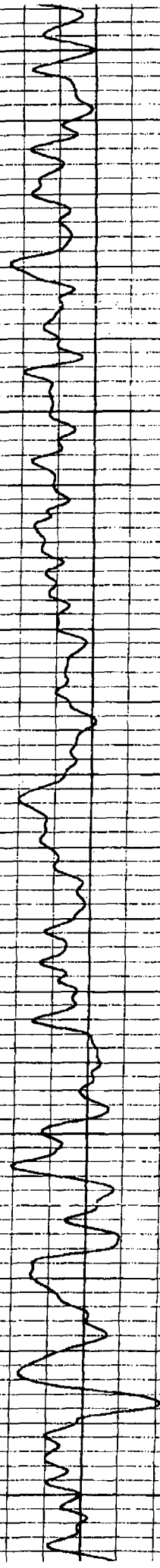
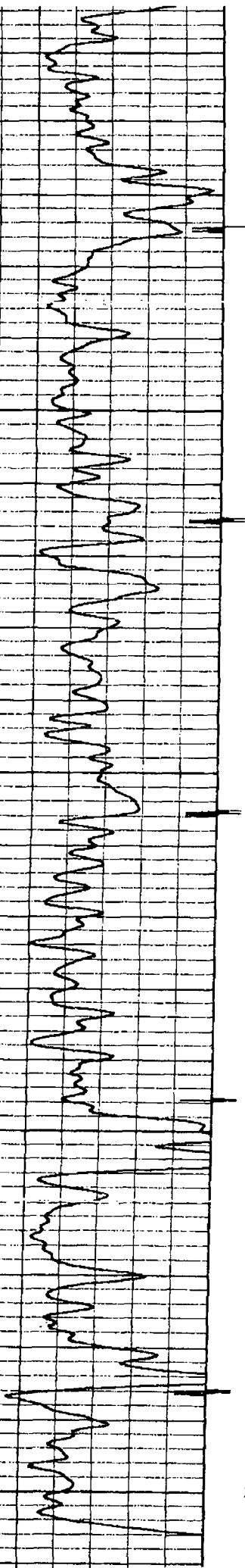
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3700

3800

3900



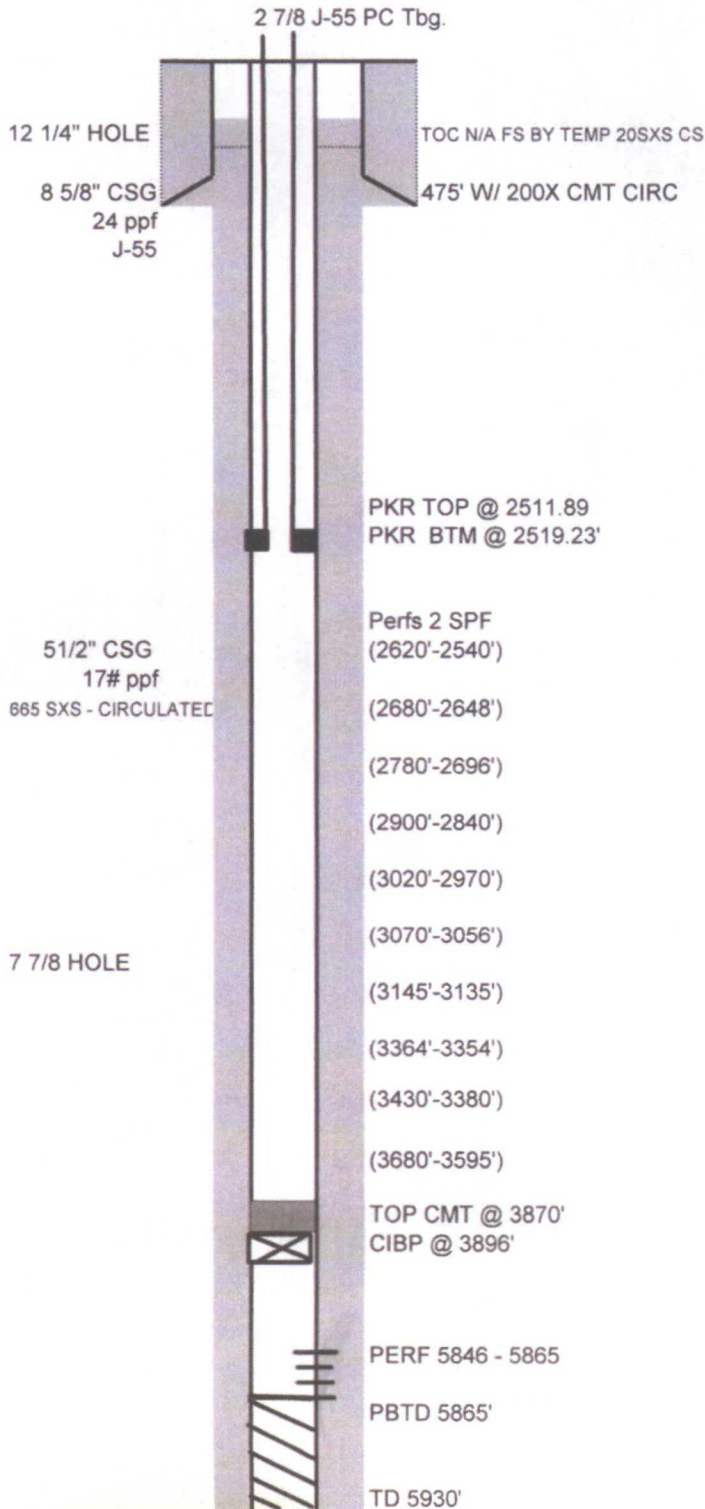
BASIC ENERGY SERVICES LP

BELCO ST. # 2

API # 3001525433

2310' FNL & 1980' FWL Unit F, Sec 20, T 23S, R 28E Eddy County

WELL BORE DIAGRAM



TOPS IN CONFORMANCE

T. SALT	1570
B. SALT	2239
RED BED	0-1000
ANHYDRITE	1000-1570
SALT	1570-2489
SAND & SHALE	2489-3930
T. DELAWARE	2454

79 jts	2.875 - J 55	PC
Well Head	8 5/8	LR

DATE 7/25/2011

PACKER DATA:

SIZE	TYPE
5 1/2	13-20# X 2 7/8 AS1-X (NP) (SS) 2.25 "F" Profile Nipple 2 7/8 T-2 on/off Tool SS Top, NP BTM

CBL starts @ 400 ft
to 5930 ft. PBTD @ 5865 ft.

Submit 1 Copy To Appropriate District
Office
District I - (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II - (575) 748-1283
811 S. First St., Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV - (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM
87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
Revised August 1, 2011

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

WELL API NO. 3001525433
5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input type="checkbox"/> X
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name Belco State
8. Well Number # 2 SWD
9. OGRID Number
10. Pool name or Wildcat Delaware
11. Elevation (Show whether DR, RKB, RT, GR, etc.)

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A
DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH
PROPOSALS.)

1. Type of Well: Oil Well ☐ Gas Well ☐ XX Other SWD

2. Name of Operator

Basic Energy Services LP

3. Address of Operator

P.O. Box 10460 Midland Texas 79702

4. Well Location

Unit Letter **F** : **2310** feet from the **North** line and **1980** feet from the **West** line
Section **20** Township **23 S** Range **28 E** NMPM County **Eddy**

11. Elevation (Show whether DR, RKB, RT, GR, etc.)

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐
DOWNHOLE COMMINGLE ☐

OTHER:

☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ P AND A ☐
CASING/CEMENT JOB ☐

OTHER: **Request Increase in Allowable Surface
Injection Pressure**

☒

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Accompanying this form are the results of a step - rate injection test performed on 8/15/2011. The purpose of this test was to support a request for an increase in the Maximum allowable surface injection pressure.

It has been determined that the fracture extension pressure is 1,106 psi. Applying a safety factor of 50 psi, Basic Energy Services LP respectfully requests approval to increase the maximum allowable surface injection pressure to 1,056 psi.

Spud Date:

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE _____ TITLE **SENM District Fluids Mgr.** PDATE **08/23/2011**

Type or print name **David H. Alvarado** E-mail address: **david.alvarado@basicenergyservices.com** PHONE: **575. 746. 2072**
For State Use Only

APPROVED BY: _____ TITLE _____ DATE _____
Conditions of Approval (if any):