

Order Number

471

API Number

30-025-40119

Operator

Apache Corporation

County

Lea

Order Date

7-20-11

Well Name

Dayton Hardy

Number

8

Location

J

UL

20

Sec

21S

T (+Dir)

37E

R (+Dir)

Oil %

9%

Gas %

61%

Pool 1

60240

Tubb Oil + Gas

Pool 2

19190

Drinkard

74%

35%

Pool 3

62700

Wantz-Abo

17%

4%

Pool 4

Comments:

Posted in RBDMS 7-20-11 BAH

30-025-40119
DHC-HOB-471

DOWNHOLE COMMINGLE CALCULATIONS:

OPERATOR: Apache Corporation

PROPERTY NAME: Dayton Hardy #8

WNULSTR: 8-J-20-215-37E

SECTION I:	ALLOWABLE AMOUNT
POOL NO. 1 <u>Tubb</u>	<u>142</u> <u>284</u> MCF
POOL NO. 2 <u>Drinkard</u>	<u>142</u> <u>852</u> MCF
POOL NO. 3 <u>Wantz; Abo</u>	<u>187</u> <u>1122</u> MCF
POOL NO. 4 _____	_____ MCF
POOL TOTALS	<u>471</u> <u>2258</u>

SECTION II:	<u>Oil</u>	<u>Gas</u>
POOL NO. 1 <u>Tubb</u>	<u>9%</u>	<u>61%</u>
POOL NO. 2 <u>Drinkard</u>	<u>74%</u>	<u>35%</u>
POOL NO. 3 <u>Wantz-Abo</u>	<u>17% x 471 = 80.07</u>	<u>4%</u>
POOL NO. 4 _____	<u>< 80 ></u>	

<u>OIL</u>	<u>GAS</u>
SECTION III: <u>17% ÷ 187 = 1100.</u>	_____

SECTION IV:	
<u>9% x 1100 = 99</u>	<u>< 99 ></u>
<u>.74% x 1100 = 814</u>	<u>< 814 ></u>
<u>17% x 1100 = 187</u>	<u>< 187 ></u>

Submit 3 Copies To Appropriate District

Office

District I

1625 N. French Dr., Hobbs, NM 88240

District II

1301 W. Grand Ave., Artesia, NM 88210

District III

1000 Rio Brazos Rd., Aztec, NM 87410

District IV

1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico

Energy, Minerals and Natural Resources

Form C-103

June 19, 2008

HOBBS OCD

JUL 19 2011

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.

Santa Fe, NM 87505

WELL API NO.

30-025-40119

5. Indicate Type of Lease

STATE ☐FEE ☒

6. State Oil & Gas Lease No.

7. Lease Name or Unit Agreement Name

Dayton Hardy

8. Well Number 008

9. OGRID Number

873

10. Pool name or Wildcat

Bli O&G(Oil)/Tubb O&G(Oil)/Drk/Wantz; Abo

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 ☐ Other:

2. Name of Operator

Apache Corporation

3. Address of Operator

303 Veterans Airpark Lane, Suite 3000 Midland, TX 79705

4. Well Location

Unit Letter J : 2310 feet from the South line and 2160 feet from the East line

Section 20 Township 21S Range 37E NMPM County Lea

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

3498' GR

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 ☒

SUBSEQUENT REPORT OF:

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

OTHER: ☐OTHER: ☐

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 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Apache would like to DHC the following pools:

R-11363

Pool Names:

Perforations:

Tubb Oil & Gas (Oil)	60240	Tubb	6219'-6311'
Drinkard	19190	Drinkard	6607'-6679'
Wantz; Abo	62700	Abo	6862'-7108'

The allocation method will be as follows based on offset production. (See attached application for exception to Rule 303-C.)

	OIL	GAS	WATER
Tubb	9%	61%	9%
Drinkard	74%	35%	78%
Abo	17%	4%	13%

Downhole commingling will not reduce the value of these pools. Ownership is the same for each of these pools.

Spud Date: 05/20/2011

Rig Release Date: 06/01/2011

DHC-HOB-471

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

SIGNATURE

Reesa Holland

TITLE Sr. Engr Tech

DATE 06/30/2011

Type or print name Reesa Holland

E-mail address: Reesa.Holland@apachecorp.com

PHONE: 432/818-1062

For State Use Only

APPROVED BY:

TITLE

PETROLEUM ENGINEER

DATE

JUL 20 2011

Conditions of Approval (if any):

HOBBS OCD

DISTRICT I

1625 N. FRENCH DR., HOUDS, NM 88240

DISTRICT II

1301 W. GRAND AVENUE, ARTESIA, NM 88210

DISTRICT III

1000 RJO BRAZOS RD., AZTEC, NM 87410

DISTRICT IV

11885 S. ST. FRANCIS DR., SANTA FE, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

11885 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

Form C-102

Revised October 12, 2005

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Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-025-40119	Pool Code 60240	Pool Name Tubb Oil and Gas (oil)
Property Code 306597	Property Name DAYTON HARDY	Well Number 8
OGRID No. 873	Operator Name APACHE CORPORATION	Elevation 3498'

Surface Location

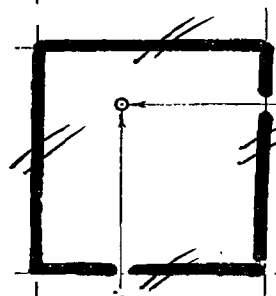
UL or lot No.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
J	20	21-S	37-E		2310	SOUTH	2160	EAST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres 40	Joint or Infill	Consolidation Code	Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

GEODETIC COORDINATES NAD 27 NME SURFACE LOCATION Y=534203.0 N X=854775.9 E LAT.=32.463381' N LONG.=103.183086' W LAT.=32°27'48" N LONG.=103°10'59" W 	OPERATOR CERTIFICATION I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <i>Sorina L. Flores</i> 4/27/11 Signature Date Sorina L. Flores Printed Name SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. DECEMBER 20, 2010 Date Surveyed DSS Signature & Seal of Professional Surveyor <i>Ronald J. Eidson</i> 10/07/2011 10.11.1851 Certificate No. GARY C. EIDSON 12841 RONALD J. EIDSON 3239
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HOBBS OCD

DISTRICT I

1625 N. FRENCH DR., HOBBS, NM 88240

JUL 19 2011

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102

Revised October 12, 2005

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DISTRICT II

1301 W. GRAND AVENUE, ARTESIA, NM 88210

OIL CONSERVATION DIVISION

RECEIVED

11885 SOUTH ST. FRANCIS DR.

Santa Fe, New Mexico 87505

DISTRICT III

1000 RIO BRAZOS RD., AZTEC, NM 87410

DISTRICT IV

11885 S. ST. FRANCIS DR., SANTA FE, NM 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-025-40119	Pool Code 19190	Pool Name Drinkard
Property Code 306597	Property Name DAYTON HARDY	Well Number 8
OGRID No. 873	Operator Name APACHE CORPORATION	Elevation 3498'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	20	21-S	37-E		2310	SOUTH	2160	EAST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres 40	Joint or Infill	Consolidation Code	Order No.
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HOBBS OCD

JW

DISTRICT I

1625 N. FRENCH DR., HOBBS, NM 88241

MAY 09 2011

State of New Mexico
Energy, Minerals and Natural Resources Department

JUL 19 2011

Form C-102

Revised October 12, 2005

Submit to Appropriate District Office

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DISTRICT II

1301 W. GRAND AVENUE, ARTESIA, NM 88210

OIL CONSERVATION DIVISION

11885 SOUTH ST. FRANCIS DR.

Santa Fe, New Mexico 87505

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DISTRICT III

1000 RIO BRAZOS RD., AZTEC, NM 87410

DISTRICT IV

11885 S. ST. FRANCIS DR., SANTA FE, NM 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-025-40119	Pool Code 62700	Pool Name Wantz; ABO
Property Code 306597	Property Name DAYTON HARDY	Well Number 8
GRID No. 873	Operator Name APACHE CORPORATION	Elevation 3498'

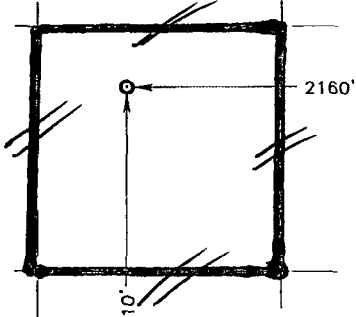
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	20	21-S	37-E		2310	SOUTH	2160	EAST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres 40	Joint or Infill	Consolidation Code	Order No.						

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HOBBS OCD

JUL 19 2011

June 30, 2011

RECEIVED

Mr. Paul Kautz
New Mexico Oil Conservation Division
1625 N French Drive
Hobbs, New Mexico 88240

RE: Application for Exception to Rule 303-C – Downhole Commingling
Dayton Hardy #8 API 30-025-40119
Unit J, Section 20, T21S, R37E
Tubb Oil & Gas (Oil) 60240; Drinkard 19190 & Wantz; Abo 62700
Lea County, New Mexico

Dear Mr. Kautz,

Enclosed please find form C-103 and attachments for downhole commingling the captioned well. The ownerships (WI, NRI and ORRI) of these pools are identical in this wellbore. The fluids from each of these pools are compatible as seen in other similar commingles in the area. Combining these fluids will not result in any damage to these pools. Commingling will improve the efficiency of present and future recovery operations. Cross flow will not be a problem due to having a production lift system capable of keeping the well pumped off thereby maximizing production. This commingling will not reduce the value of the total remaining production.

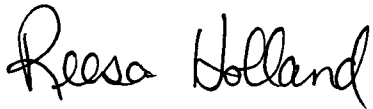
The allocation method used for this well was determined by analyzing the cumulative oil, gas and water production in a nine section area of review surrounding this well. Supporting documentation is shown on the attached spreadsheet. Production for active and inactive wells was grouped by pool in the area of review. The totals for each phase were then divided by the number of wells associated with this pool yielding an average. This average was used to determine the percentage allocation.

The main reason for using this method is based on economics and minimizing reservoir damage. Past completion practices had all three zones perforated and fracture stimulated during one full week. Each zone was isolated by a retrievable bridge plug to allow for production testing of each zone for allocation purposes. This testing period lasted as long as one month before a stabilized rate was observed thus allowing the next zone to be brought on and tested. During this time period the completion fluids used were still confined to the other reservoirs causing gel damage. It is a common practice to get these fluids out of the wellbore as soon as possible to help maximize productivity. On a cost basis it is more expensive to have a completion rig move in and out multiple times to bring on each new zone. Several other factors such as weather, other new completions and regulatory well work may interfere with these new wells.

The area of review used encompasses what has been accepted as a good statistical representation for allocation purposes. By using this allocation method all zones will be brought online in a more effective and efficient manner. This will in turn generate a higher productive rate and quicker revenue streams not only for the operator but for the State of New Mexico too.

If you need additional information or have any questions, please give me a call at (432) 818-1062.

Sincerely,

A handwritten signature in black ink that reads "Reesa Holland". The signature is written in a cursive, flowing style.

**Reesa Holland
Sr. Engineering Technician**

Lease Name	Well Number	10 Digit API	Location	ubb Oil	kard Oil	Oil	b Gas	ard Gas	Gas	ubb	kard Water	o Water
Lease Name	Well Number	10 Digit API	Location	ubb Oil	kard Oil	Oil	b Gas	ard Gas	Gas	ubb	kard Water	o Water
STATE DA	1	3002506615	16L 21S 37E C NW SW		193533			417151			6013	
STATE DA	2	3002506616	16K 21S 37E		196029			1534877			3542	
STATE DA	5	3002506617	16I 21S 37E			5165						
STATE DA	3	3002506618	16J 21S 37E	33803	137311		3592486	1776192			968	
STATE DA	4	3002506619	16I 21S 37E C NE SE		159005			2309092			573	
HARRY LEONARD NCT E	1	3002506620	16G 21S 37E C SW NE		38352			729087			403	
HARRY LEONARD NCT E	2	3002506621	16H 21S 37E		158744			1409874			3476	
HARRY LEONARD NCT E	3	3002506622	16B 21S 37E C NW NE		126435			2447814			8141	
HARRY LEONARD NCT E	4	3002506623	16A 21S 37E NE NE	19698	60780		6447223			788		
HARRY LEONARD NCT E	5	3002506624	16H 21S 37E SE SE NE		25103	1397		1173015	16468		71609	29
STATE C TR 12	3	3002506625	16E 21S 37E SW NW		190002			599737			5774	
STATE C TRACT 12	4	3002506626	16F 21S 37E	18900	212061		434872	2310967		19325	17524	
STATE C TR 12	6Y	3002506627	16C 21S 37E	24046			4884987			2329		
STATE C TR 12	6Y	3002506628	16C 21S 37E	21780	191900		4250015	1468633		1942	8898	
STATE C TRACT 12	7	3002506629	16D 21S 37E		234226			1016441			62687	
STATE LAND 15	1	3002506630	16M 21S 37E C SW SW		222695			1527048			68180	
STATE LAND 15	2	3002506631	16N 21S 37E C SE SW		180687			1575008			16287	
STATE LAND 15	3	3002506632	16O 21S 37E C SW SE	130	152184		1985	6727			90	
STATE LAND 15	4	3002506633	16P 21S 37E C SE SE	22356	219483		6485465	2052521		2666	59153	
STATE LAND 15	5	3002506634	16P 21S 37E	397		52519	6247		60199	1738		21503
MITTIE WEATHERLY	1	3002506635	17F 21S 37E		284651			1534360			25507	
LOCKHART A 17	2	3002506637	17I 21S 37E		128919			47881			30	
LOCKHART A 17	3	3002506638	17H 21S 37E		147030			629007			13515	
LOCKHART A 17	4	3002506639	17A 21S 37E NE NE	25219	126170		272576	933316		390	2007	
LOCKHART	1	3002506640	17L 21S 37E	78549	39619		708171			2004		
LOCKHART	2	3002506641	17M 21S 37E	5567	102041		135583	840187		1041	6282	
WEATHERLY	65	3002506642	17B 21S 37E NE NW NE	21343	267674		335277	1307116		2643	2906	
HARDY BLINEBRY UNIT	3	3002506643	17N 21S 37E		103827			77883			167	
W W WEATHERLY	2	3002506645	17J 21S 37E NW SE		207562			830725			3595	
W W WEATHERLY	3	3002506646	17G 21S 37E C SW NE	23670	115000		545556	250835		156987	3061	
W W WEATHERLY	4	3002506647	17K 21S 37E NE NE SW		127249			796780			141399	
MITTIE WEATHERLY	2	3002506648	17E 21S 37E	19595	15747		177411			1545		
MITTIE WEATHERLY	3	3002506649	17C 21S 37E C NE NW		68468			252825			7763	
HARDY BLINEBRY UNIT	1	3002506652	17P 21S 37E		65420							
HARDY BLINEBRY UNIT	2	3002506653	17O 21S 37E		99502		87783					
STATE DC	1	3002506663	19F 21S 37E		43067			483382			23202	
L G WARLICK A	1	3002506664	19I 21S 37E		57345			629754			12430	
L G WARLICK	1	3002506665	19H 21S 37E		87728			197597			4556	
L G WARLICK A	2	3002506666	19J 21S 37E		74934			998936			22251	
GRAHAM STATE NCT I	1	3002506668	19 21S 37E		298275			964176			34718	
STATE CK	1	3002506672	19N 21S 37E		207926			1252724			169892	
STATE CK	2	3002506673	19K 21S 37E		267796			858138			199300	
HARDY	2	3002506674	19P 21S 37E		115184			772566			5634	
J G RANDLE	1	3002506680	20G 21S 37E		60184			1105410			238	
J G RANDLE A	1	3002506681	20F 21S 37E		162131			645921			69172	
C L HARDY	2	3002506685	20N 21S 37E SE SE SW		277960			495190			116587	
C L HARDY	3	3002506686	20K 21S 37E		151807			593524			10359	
C L HARDY	5	3002506687	20L 21S 37E C NW SW		127573			1096899			8619	
DAYTON HARDY	2	3002506688	20I 21S 37E	4354	126799		60038	466575		9852	4553	
DAYTON HARDY	3	3002506689	20J 21S 37E C NW SE		132494			410107			5751	
D C HARDY	3	3002506690	20P 21S 37E SE SE		197507			1469346			23674	
D C HARDY	4	3002506691	20O 21S 37E S2 SW SE	19536	366751		9227	2106171		30539	109170	
ELLIOTT B	1	3002506692	20D 21S 37E		114405			329823			14162	
J G RANDLE	1	3002506693	20E 21S 37E		190230			1479677			25499	
ANDERSON	1	3002506695	21I 21S 37E	11180	12746	17248	1716739	765397	83255	789	19136	68280
ANDERSON	1	3002506696	21I 21S 37E C NE SE	11087	229828		1515872	1326784		780	3350	
M E WANTZ	8	3002506697	21O 21S 37E			63712			153411			16573
M E WANTZ	4	3002506698	21J 21S 37E	35400		38048	3680587			1183		
M E WANTZ	7	3002506699	21N 21S 37E			161157			272493			48288
M E WANTZ	5	3002506700	21K 21S 37E		21284	5663		1576506			12714	
M E WANTZ	12	3002506701	21M 21S 37E		90065			1534911			9506	
M E WANTZ	11	3002506702	21L 21S 37E		100782			236001			27049	
M E WANTZ	9	3002506703	21J 21S 37E NW SE	33802	91512		3571340	280463		1265	6016	
M E WANTZ	10	3002506704	21K 21S 37E	24029	79084		1050685	77685			3111	
C L HARDY	4	3002506705	20M 21S 37E C SW SW		101578							
M E WANTZ	6	3002506709	21M 21S 37E			262790						
MARY E WANTZ	1	3002506713	21N 21S 37E		152796			576458			102	
MARY E WANTZ	2	3002506714	21O 21S 37E		23892			168308			97	
MARY E WANTZ	3	3002506715	21P 21S 37E		227627			779316			22295	
ELLIOTT A	1	3002506716	21A 21S 37E C NE NE	5448	327940		85696	4127861		15894	23520	
ELLIOTT A	2	3002506717	21H 21S 37E C SE NE	33724	173693		2512828	1920141		946	15045	
ELLIOTT A	3	3002506718	21A 21S 37E			4595						
ELLIOTT A	4	3002506719	21H 21S 37E			82148						
WEATHERLY	2	3002506720	21D 21S 37E		187374			680451			5598	
WEATHERLY	3	3002506721	21C 21S 37E		173489			1789223			3616	
WEATHERLY	4	3002506722	21B 21S 37E		231742			2108304			8465	
WEATHERLY	5	3002506723	21E 21S 37E		179281			1239325			357	
WEATHERLY	6	3002506724	21F 21S 37E		171878			1453307			6706	
WEATHERLY	7	3002506725	21G 21S 37E	1315	156398		144933	1553489		2563	5505	
WEATHERLY E	1	3002506726	21G 21S 37E	58350			7653840					
UNIT	125	3002506813	28O 21S 37E		175867			325953			221	
J N CARSON NCT A	11	3002506817	28K 21S 37E NE NE SW			24998						
UNIT	115	3002506818	28K 21S 37E		164855			331234			1202	
UNIT	126	3002506831	28P 21S 37E	41810	122002		4674523	192467		1486	6444	
UNIT	113	3002506832	28I 21S 37E		254375			881419			52939	
UNIT	109	3002506840	28E 21S 37E		208446			358269			365	

Lease Name	Well Number	10DIGITAPI	Location	Tubb	Drinkard	Abo	Tubb	Drinkard	Abo	Tubb	Drinkard	Abo
UNIT	110	3002506841	28F 21S 37E		235030			1163855				750849
UNIT	104	3002506842	28D 21S 37E SW NW NW		131081			624112				379082
EUNICE KING	8	3002506844	28H 21S 37E C SE NE	4156	168965		35817			2389		
UNIT	111	3002506845	28G 21S 37E		204010			481132				3760
UNIT	102	3002506847	28B 21S 37E NW NW NE		137428			231995				16952
UNIT	401	3002506848	28A 21S 37E C NE NE		5397	574		585130	10217		230	723
EUNICE KING	13	3002506849	28A 21S 37E	15927	156657		5431132			332		
J N CARSON NCT A	9	3002506850	28K 21S 37E	4750			3153602			9211		
EUNICE KING	14	3002506851	28G 21S 37E NW SW NE	3820			486470			23814		
EUNICE KING	15	3002506852	28F 21S 37E SE SE NW			2603						
UNIT	101	3002506853	28A 21S 37E		81502			667748				209090
EUNICE KING	18	3002506855	28E 21S 37E	6239			942488			658		
EUNICE KING	19	3002506856	28C 21S 37E C NE NW			13949						
LINAM	3	3002506859	29A 21S 37E SE NE NE	15727		3054	3288195			831		
UNIT	114	3002506861	28J 21S 37E	26982	334687		1696615	758118		254	356425	
UNIT	103	3002506862	28C 21S 37E	28458	462352		4952056	1334287				577005
EUNICE KING	24	3002506864	28E 21S 37E			26754						
EUNICE KING	104	3002506865	28D 21S 37E SE NW NW	5670	179970	18528	350702			11116		
UNIT	112	3002506866	28H 21S 37E NW SE NE		137518			348326				440268
UNIT	116	3002506867	28L 21S 37E		661651			1744855				1095216
UNIT	123	3002506868	28M 21S 37E		234998			386801				264
UNIT	124	3002506870	28N 21S 37E		542581			1131547				1090089
E O CARSON	17	3002506871	28N 21S 37E SE SW	9403			1306555			6554		
E O CARSON	19	3002506873	28L 21S 37E	18581			3600039			7212		
E O CARSON	20	3002506874	28N 21S 37E			13257						
E O CARSON	22	3002506876	28L 21S 37E			7520						
UNIT	117	3002506877	29I 21S 37E	20694	152198		1954603	281274		531		
UNIT	118	3002506878	29J 21S 37E		262616			1012287			881031	
WILLIAM TURNER	3	3002506879	29I 21S 37E SE NE SE	20554		338	1867881		1077	346		314
UNIT	122	3002506880	29P 21S 37E C SE SE	27491	373029		2431548	1183041		1177	1588474	
UNIT	121	3002506881	29O 21S 37E		109623			876032				
TURNER	3	3002506882	29P 21S 37E	27027			2161687			321		
UNIT	165	3002506885	29A 21S 37E C SE SW		436103			582481				953186
UNIT	164	3002506886	29M 21S 37E		134827							
UNIT	162	3002506888	29K 21S 37E	12191	250953		1185513	1370617				50824
UNIT	158	3002506891	29E 21S 37E C NE NW	309	457142		5590	808332				108004
HARDY	4	3002506892	29F 21S 37E		154340							
UNIT	160	3002506893	29E 21S 37E		200321			292884				4559
UNIT	159	3002506894	29D 21S 37E		286285			438632				131505
UNIT	108	3002506895	29H 21S 37E		295118			3233609				983008
UNIT	107	3002506896	29G 21S 37E		200767			548572				2492
D HARDY	3	3002506897	29H 21S 37E			655						
UNIT	105	3002506898	29G 21S 37E C NE NE		510190			970866				562091
UNIT	106	3002506899	29F 21S 37E C NW NE		337494			886276				309929
UNIT	120	3002506903	30C 21S 37E NE SE SE		630663			646900				153543
UNIT	119	3002506904	30I 21S 37E		38025							
V M HENDERSON	3	3002506909	30H 21S 37E SE NE		31111							6197
V M HENDERSON	6	3002506912	30C 21S 37E		30789			78492				10686
V M HENDERSON	7	3002506913	30F 21S 37E		27561			173306				33410
V M HENDERSON	8	3002506914	30E 21S 37E		11393			24194				2641
V M HENDERSON	9	3002506915	30G 21S 37E	5064	24058		12285	89639		1864	10222	
V M HENDERSON	10	3002506916	30D 21S 37E		28459			157069				19371
W E LEE	3	3002509922	20C 21S 37E	10052	137732		98471	422944		7520	3038	
A M YORK	2	3002509924	20A 21S 37E C NE NE	30845	229439		200056	885017		17429	24068	
A M YORK	1	3002509925	20H 21S 37E SE NE	2378	285241		616172	1383665		13031	2062	
UNIT	163	3002509935	29L 21S 37E NW NW SW		214411			594234				200375
W E LEE	2	3002511520	20B 21S 37E	34613	199695		353992	614941		7092	3254	
GULF MATTERN	1	3002520004	30J 21S 37E	495	69499		6306	487350		1216	108275	
GRAHAM STATE NCT I	2	3002520088	19L 21S 37E		40301			262464				4391
STATE LAND 15	6	3002520311	16O 21S 37E SE SW SE		74023	67271		2338702	168449		30935	39472
L G WARLICK B	2	3002520368	19G 21S 37E		37198			1206068				8043
STATE DC	2	3002520583	19 21S 37E		45273			360346				32583
SUNSHINE STATE	1	3002520776	19C 21S 37E		29526			243706				2501
L G WARLICK	2	3002520777	19B 21S 37E		100449			527321				98382
L G WARLICK	3	3002523953	18P 21S 37E		27706			249955				38176
H T MATTERN NCT B	14	3002524022	30M 21S 37E C SW SW		88169			532812				304424
H T MATTERN NCT B	15	3002524084	30N 21S 37E		5028			50987				2384
H T MATTERN NCT B	18	3002524187	30O 21S 37E		63498			343615				143740
UNIT	161	3002524415	29F 21S 37E SE NW	808	91175		76080	156405		3771	269085	
H T MATTERN NCT C	5	3002525025	18I 21S 37E E2 NE SE		16709	11883		1001260	105713		10325	17800
H T MATTERN NCT C	6	3002525099	18H 21S 37E		202851			1639143				228716
H T MATTERN NCT C	7	3002525111	18J 21S 37E N2 NW SE		13975			172592				16893
H T MATTERN NCT C	8	3002525112	18A 21S 37E E2 NE NE		39528	13759		741362	83125		22444	66261
UNIT	408	3002525184	28D 21S 37E		1947			1468839				4260
HARRY LEONARD NCT E	6	3002525198	16A 21S 37E NE NE NE		21918			750803				7973
UNIT	409	3002525212	28C 21S 37E SE NE NW		775			1112388				1805
UNIT	411	3002525222	28B 21S 37E		3322			1157391				4264
UNIT	412	3002525223	29D 21S 37E		109615			630215				90913
UNIT	413	3002525224	29B 21S 37E		3258			613732				3425
UNIT	414	3002525252	28H 21S 37E		1564			691434				25578
UNIT	415	3002525253	28I 21S 37E		2262			2172421				2036
UNIT	416	3002525262	28P 21S 37E		755			1258227				1050
HARDY	6	3002525509	19O 21S 37E		27349			461410				51850
UNIT	418	3002525515	29D 21S 37E SE NW SE		153918			2604137				1329402
UNIT	417	3002525545	28K 21S 37E		72413			141296				1065432
UNIT	424	3002525549	28L 21S 37E		10052			2060084				279162
UNIT	423	3002525627	28N 21S 37E		455			3061269				3307

Lease Name	Well Number	10DIGITAPI	Location	Tubb	Drnkard	Abo	Tubb	Drnkard	Abo	Tubb	Drnkard	Abo
UNIT	419	3002525694	28L 21S 37E		49189			373155				331119
STATE E TRACT 27	1	3002526317	18N 21S 37E S2 SE SW		32446			117297				8925
UNIT	425	3002526444	28G 21S 37E		242			1023682				2493
UNIT	426	3002526445	29H 21S 37E		25519			1002970				277937
UNIT	427	3002526446	29G 21S 37E		70136			205308				306335
UNIT	432	3002526451	29P 21S 37E SE SE SE		11624			1869128				101966
WILLIAM TURNER	4	3002527261	29J 21S 37E			95592			546344			11382
H T MATTERN NCT C	15	3002527529	18B 21S 37E		1180			2952				1110
H T MATTERN NCT C	16	3002527530	18G 21S 37E		1755			6081				1198
MITTIE WEATHERLY	6	3002528395	17E 21S 37E		51798			578141				82908
UNIT	433	3002530418	29G 21S 37E SE NW SW		146183			145233				1372830
L G WARLICK	4	3002533030	19A 21S 37E		16532			198628				54060
MATTERN	4	3002533544	30J 21S 37E		184	754		163	4298			15 5148
V M HENDERSON	16	3002533782	30 21S 37E		376			747				
STATE DC	3	3002534401	19F 21S 37E NE SE NW		30651	209		410899	438			224758
L G WARLICK A	3	3002534504	19I 21S 37E NE SE		8033	1574		124075	3014			382577 2424
STATE DC	4	3002534510	19 21S 37E		17118	840		68507	1115			163732 406
MITTIE WEATHERLY	7	3002535745	17D 21S 37E SE NW NW			336			3158			17497
STATE C TRACT 12	14	3002536305	16D 21S 37E SE NW NW		11419		22188	150217				27609
W H TURNER	3	3002537161	29K 21S 37E NE NE SW	1834			167239			9665		
STATE DA	12	3002537201	16J 21S 37E SE NW SE	2671	2069		53	64191		1008		866
STATE C TRACT 12	21	3002537202	16C 21S 37E NE NE NW			10876			96700			37293
STATE LAND 15	9	3002537535	16O 21S 37E NE SW SE	586			11981					
STATE LAND 15	10	3002537536	16O 21S 37E SW SW SE	416			6736					
UNIT	434	3002537805	28B 21S 37E NW NW NE		9103			4717				51591
H S TURNER	8	3002537873	29M 21S 37E NW SW SW	13641			189328			152171		
D C HARDY	9	3002538004	20O 21S 37E	2065	43760		7056	167334				59180
W H TURNER	9	3002538126	29L 21S 37E SE NW SW	8614			86209			118409		
H S TURNER	10	3002538296	29N 21S 37E NE SE SW	6523			72583			60770		
D C HARDY	10	3002539342	20P 21S 37E SE SE SE	205	4913		14798	22199		375		12164
D C HARDY	11	3002539637	20P 21S 37E	143	3447		7145	10722		581		18800
TURNER	7	3002539691	29O 21S 37E	312			34281					
TOTALS				964,332	22,931,637	1,009,766	91,855,397	132,551,577	1,609,474	718,343	20,269,803	353,393
AVERAGES				15,809	134,892	31,555	1,458,022	844,278	94,675	14,367	130,773	22,087

Proposed Allocations	Oil	Gas	Water
Tubb	9%	61%	9%
Drnkard	74%	35%	78%
Abo	17%	4%	13%
TOTAL	100%	100%	100%

AFE No: PA- 11- 0329

Dayton Hardy #8
API #: 30-025-40119
2310' FSL & 2160' FEL
Section 20, Township 21S, Range 37E
Lea County, New Mexico

HOBBS OCD

JUL 19 2011

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2 June 2011

Completion Procedure – Tubb-Drinkard-Abo

Recommended Procedure:

Note: 5-1/2", 17#, J-55 & L-80 csg set @ 7250' w/600 sx cmt. (Did not circ 1st stg cmt). DV tool @ 4204' w/700 sx cmt. (Circ 73 sx). (987' of L-80 csg on top). PBTD @ +/-7205'.

Abo:

1. MIRU PU. Install BOP.
2. RIH w/4-3/4" bit & 2-7/8", 6.5#, L-80 ws. Drill out DV tool @ +/-4204'. Clean well out to PBTD @ +/- 7205'. Pressure test csg. POOH.
3. MIRU wireline unit. Run GR/CCL/CBL log from PBTD +/- 7205' to surface. Correlate to Weatherford Compensated Neutron/Compensated Photo Density/Spectral Gamma Ray log dated 5/31/11.
4. Perforate the Abo interval @ 6862', 69', 71', 78', 97', 99', 6901', 07', 09', 17', 19', 21', 27', 31', 33', 37', 39', 88', 95', 7000', 07', 13', 20', 24', 31', 69', 71', 79', 84', 86', 97', 7104' & 08' w/1 spf, 120 degree phasing. Total = 33 shots.
5. RIH w/RBP, pkr & 2-7/8" ws. Set RBP @ +/-7150'. Pkr @ +/- 7050'.
6. Acidize Abo interval 7069' – 7108' w/2,000 gals 20% HCL-NE-FE acid and ball sealers. Attempt to get 5-10 BPM rate with max treating pressure of 6,000 psi.
7. Release pkr & RBP. Reset RBP @ +/- 7050'. Pkr @ +/-6965'.
8. Acidize Abo interval 6988' – 7031' w/2,000 gals 20% HCL-NE-FE acid and ball sealers. Attempt to get 5-10 BPM rate with max treating pressure of 6,000 psi.
9. Release pkr & RBP. Reset RBP @ +/- 6915'. Pkr @ +/-6825'.
10. Acidize Abo interval 6862' – 6939' w/4,000 gals 20% HCL-NE-FE acid and ball sealers. Attempt to get 5-10 BPM rate with max treating pressure of 6,000 psi.
11. Release pkr & run thru perfs to knock off balls. Reset pkr @ 6825'.
12. Swab back load from Upper Abo interval 6862' – 6939'. Report results to Midland office.
13. Release pkr & RBP. Reset RBP @ +/-7050'. Pkr @ +/- 6965'.
14. Swab back load from Middle Abo interval 6988' – 7031'. Report results to Midland office.
15. Release pkr & RBP. Reset RBP @ +/- 7150'. Pkr @ +/- 7050'.
16. Swab back load from Lower Abo interval 7069' – 7108'. Report results to Midland office.
17. Release pkr & RBP. POOH. Set a composite bridge plug (or CIBP w/35' cmt cap pending the Abo swab results) @ +/- 6835'.

Dayton Hardy #8**Drinkard:**

1. Perforate the Drinkard interval @ 6607', 11', 13', 19', 21', 37', 43', 45', 47', 53', 55', 61', 65', 75' & 79' w/1 spf. (Total : 15 shots).
2. Perforate the Drinkard interval @ 6691', 93', 97', 99', 6701', 03', 05', 09', 17', 19', 21', 23', 25', 27', 33', 39', 41', 43', 45' & 47' w/2 spf, 120 degree phasing. (Total : 40 shots).
3. RIH w/2-7/8" ws and pkr. Set pkr @ +/- 6500'.
4. Acidize the Drinkard interval w/4,200 gals 15% HCL-NE-FE BXDX acid and ball sealers.
5. Release pkr and run through perms to knock off balls. POOH.
6. RU frac equipment. Pump 1 drum corrosion inhibitor followed by 10 bbl pad of 2% KCL. Pump 2 drums scale inhibitor and flush w/10 bbls 2% KCL.
7. Frac the Drinkard interval w/200,000# 20/40 SLC (or equivalent) resin coated sand down 5-1/2" csg @ 40 BPM in 35# XL gel as per frac recommendation.
8. Spot 1,000 gals 15% HCL from 6325' – 5325' during Drinkard frac flush.
9. RIH and set a composite bridge plug above the Drinkard interval @ +/- 6500'.

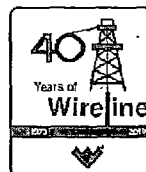
Tubb:

1. Perforate the Tubb interval @ 6219', 27', 29', 31', 33', 41', 43', 45', 57', 69', 79', 81', 83', 85', 89', 95', 6303', 05', 07' & 11' w/2 spf, 120 degree phasing. (Total : 40 shots).
2. Spearhead 1,000 gals 15% HCL acid ahead of Tubb frac.
3. Pump 1 drum corrosion inhibitor followed by 10 bbl pad of 2% KCL. Pump 2 drums scale inhibitor and flush w/10 bbls 2% KCL..
4. Frac the Tubb interval w/80,000# 20/40 SLC (or equivalent) resin coated sand down 5-1/2" csg @ 40 BPM in 25# XL gel as per frac recommendation.
5. RIH w/2-7/8" ws and bit. Drill out plug(s) and clean out to +/- 6800' PBTD (or 7200' if Abo is productive). POOH LD ws.
6. RIH w/2-7/8" production tubing. Land SN @ +/-6750' (or 7125' for Abo). RIH w/1-1/2" pump & rods.
7. Install 640 PU.
8. Place well in test.

**Weatherford®***Marked*

**COMPENSATED NEUTRON
COMPENSATED PHOTO DENSITY
SPECTRAL GAMMA RAY**

COMPANY **APACHE CORP.**
 WELL **DAYTON HARDY No. 8**
 FIELD **DRINKARD**
 PROVINCE/COUNTY **LEA**
 COUNTRY/STATE **U.S.A. / NEW MEXICO**
 LOCATION **2310' FSL & 2160' FEL
SEC. 20, T-21S, R-37E**

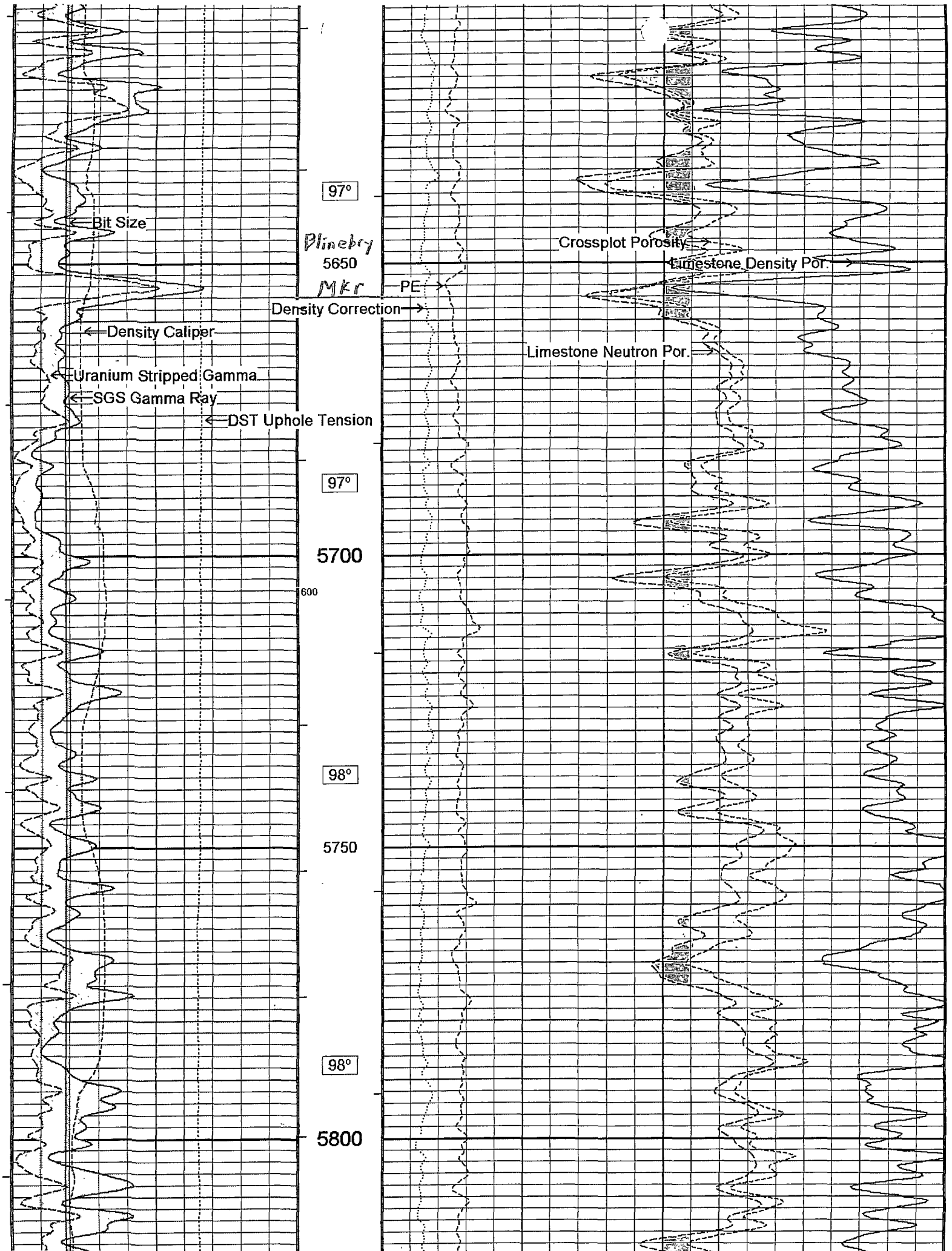
HOBBS OCD**JUL 19 2011****RECEIVED**

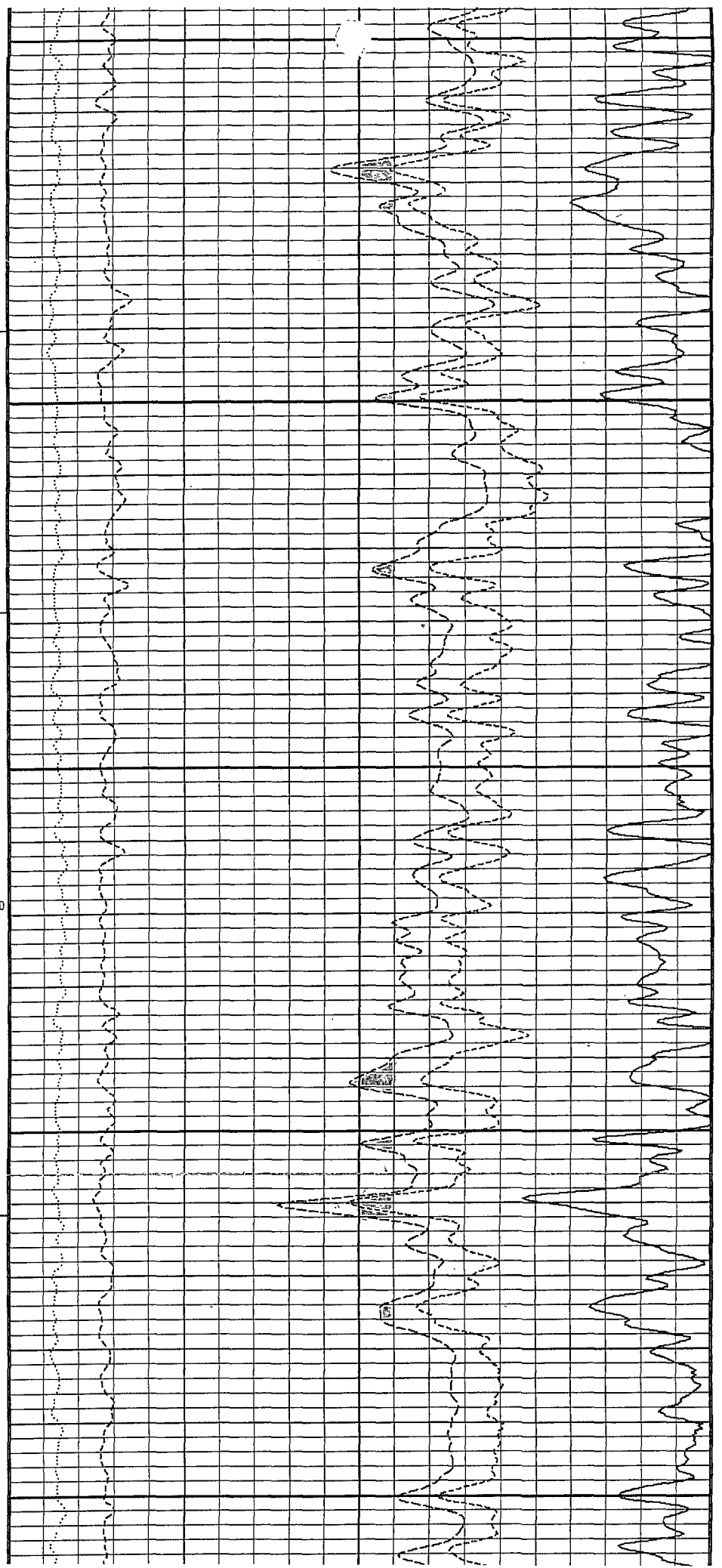
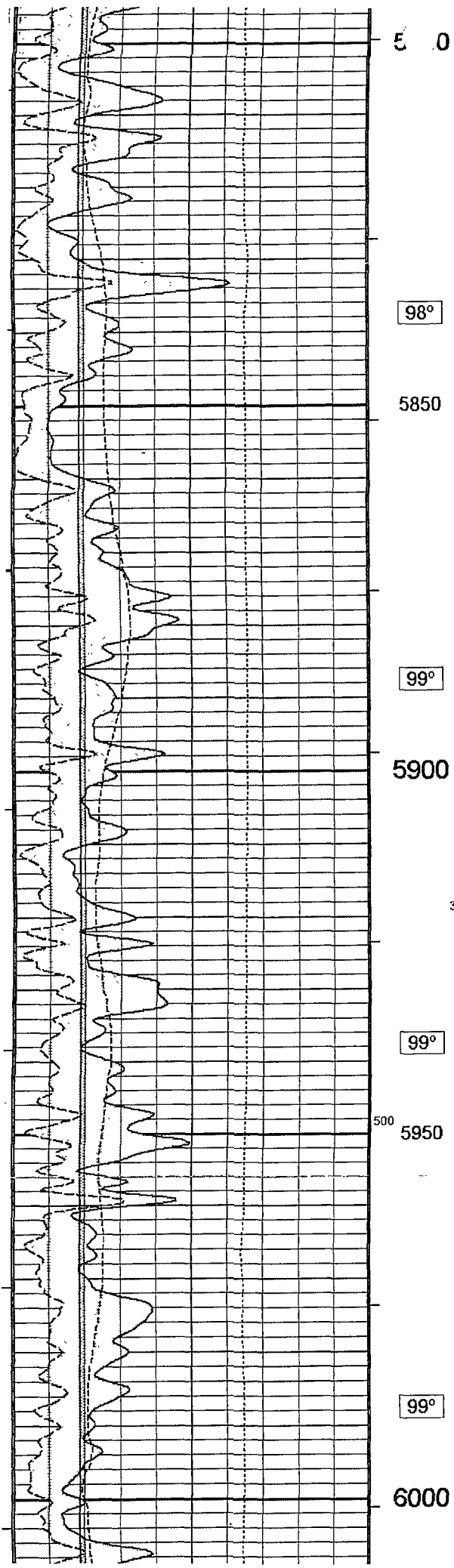
SEC 20	TWP 21S	RGE 37E	Other Services DUAL LATEROLOG MICRO LATEROLOG SPECTRAL GAMMA RAY	COMPENSATED SONIC
API Number 30-025-40119				
Permit Number				

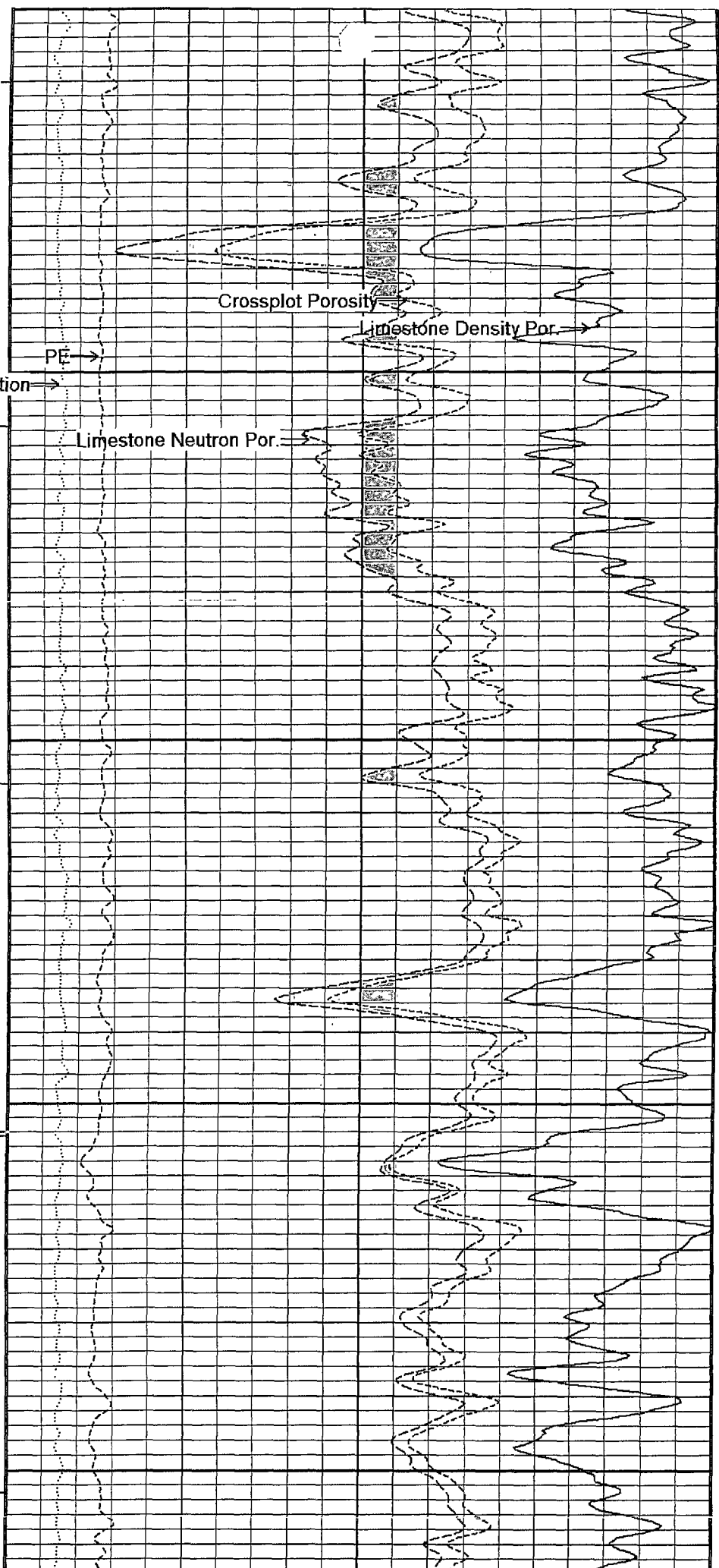
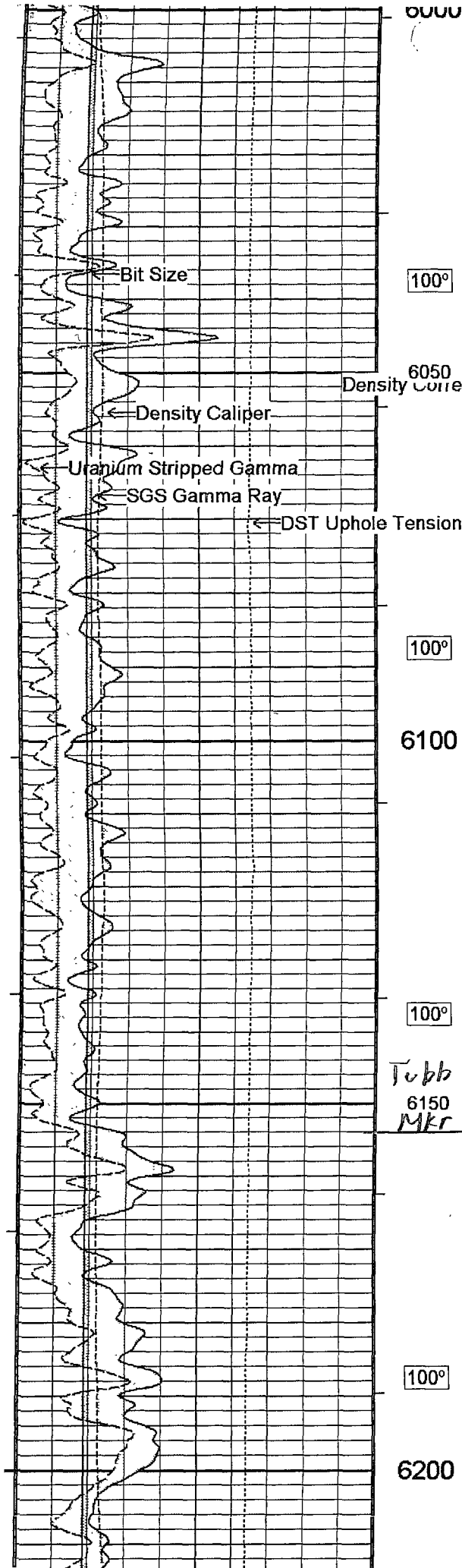
Permanent Datum G.L., Elevation 3498 feet
 Log Measured From K.B. @ 11 FEET above Permanent Datum
 Drilling Measured From K.B.

Elevations: feet
 KB 3509.0
 DF 3508.0
 GL 3498.0

Date	31-MAY-2011	
Run Number	ONE	
Depth Driller	7250.00	feet
Depth Logger	7244.00	feet
First Reading	7197.00	
Last Reading	150.00	
Casing Driller	1283.00	feet
Casing Logger	1282.00	feet
Bit Size	7.875	inches
Hole Fluid Type	BRINE	
Density / Viscosity	10.00 lb/USg	35.00 sec/qt
PH / Fluid Loss	8.00	20.00 ml/30Min
Sample Source	FLOWLINE	
Rm @ Measured Temp	0.052 @ 75.0	ohm-m
Rmf @ Measured Temp	0.039 @ 75.0	ohm-m
Rmc @ Measured Temp	0.065 @ 75.0	ohm-m
Source Rmf / Rmc	CALC	CALC
Rm @ BHT	0.038 @ 105.0	ohm-m
Time Since Circulation	6 HOURS	
Max Recorded Temp	105.00	deg F
Equipment Name	COMPACT	
Equipment / Base	13270	ODESSA
Recorded By	CHRISTOPHER GIESE	
Witnessed By	LARRY BROOKER	
SO#	3528311	







6000

100°

6050

100°

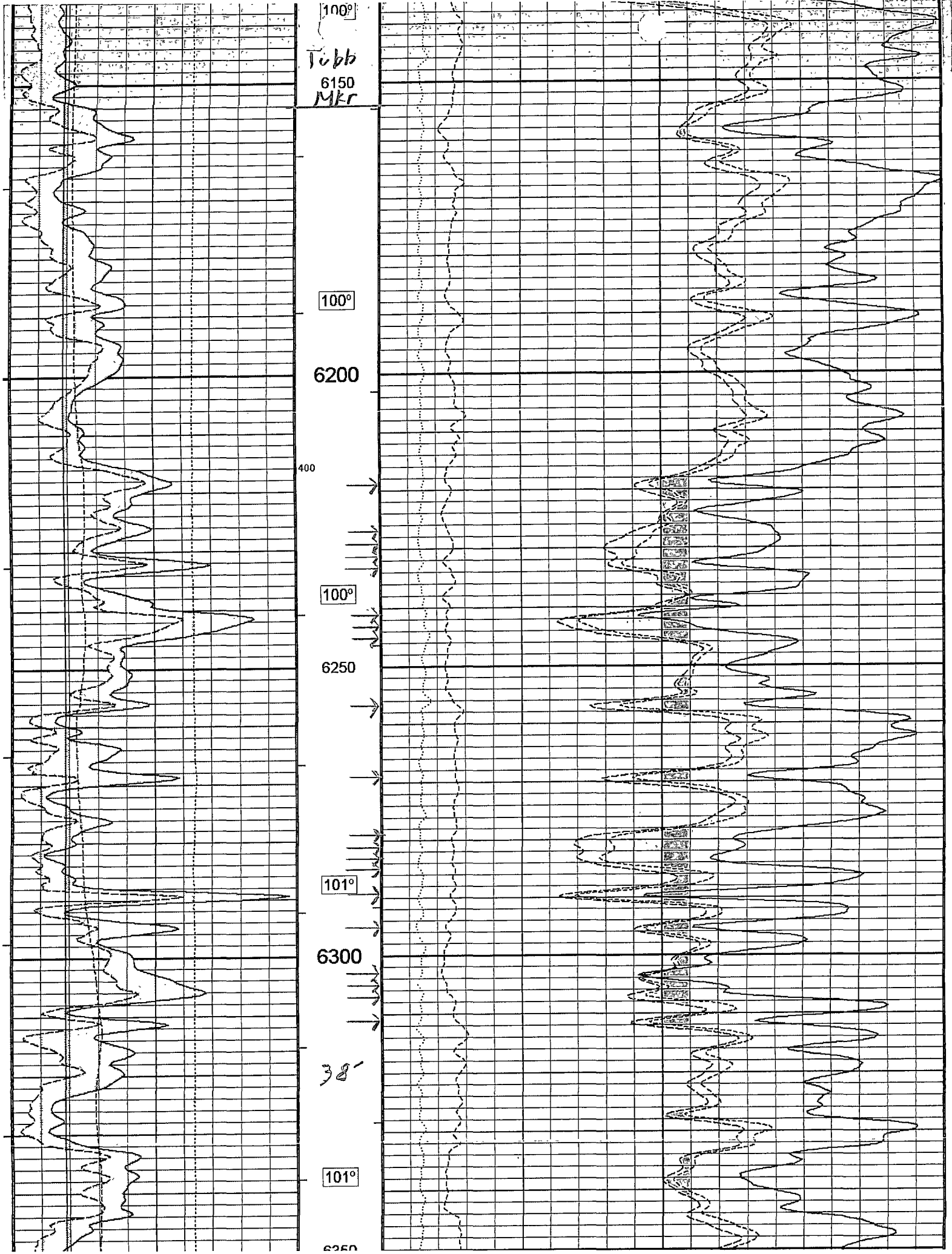
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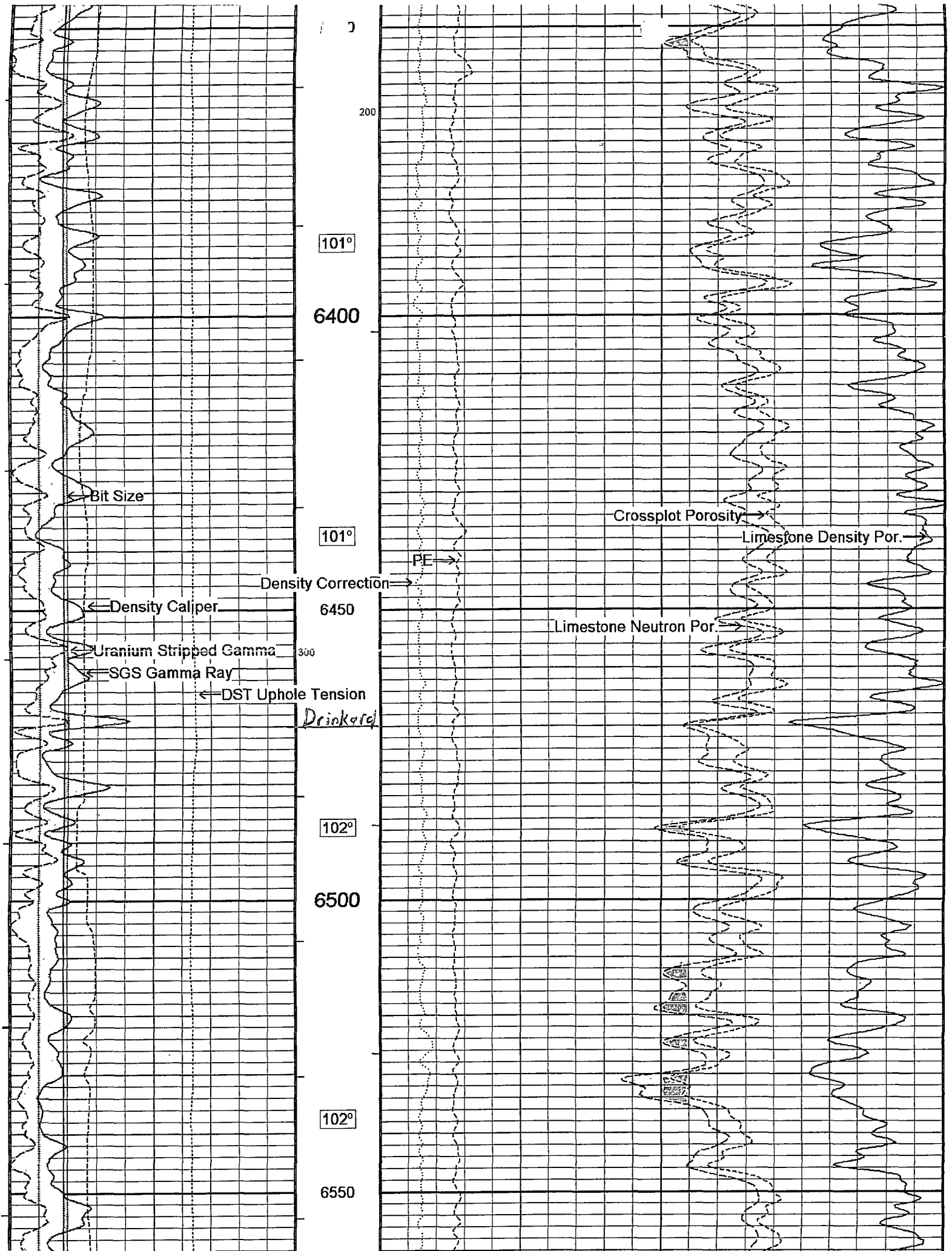
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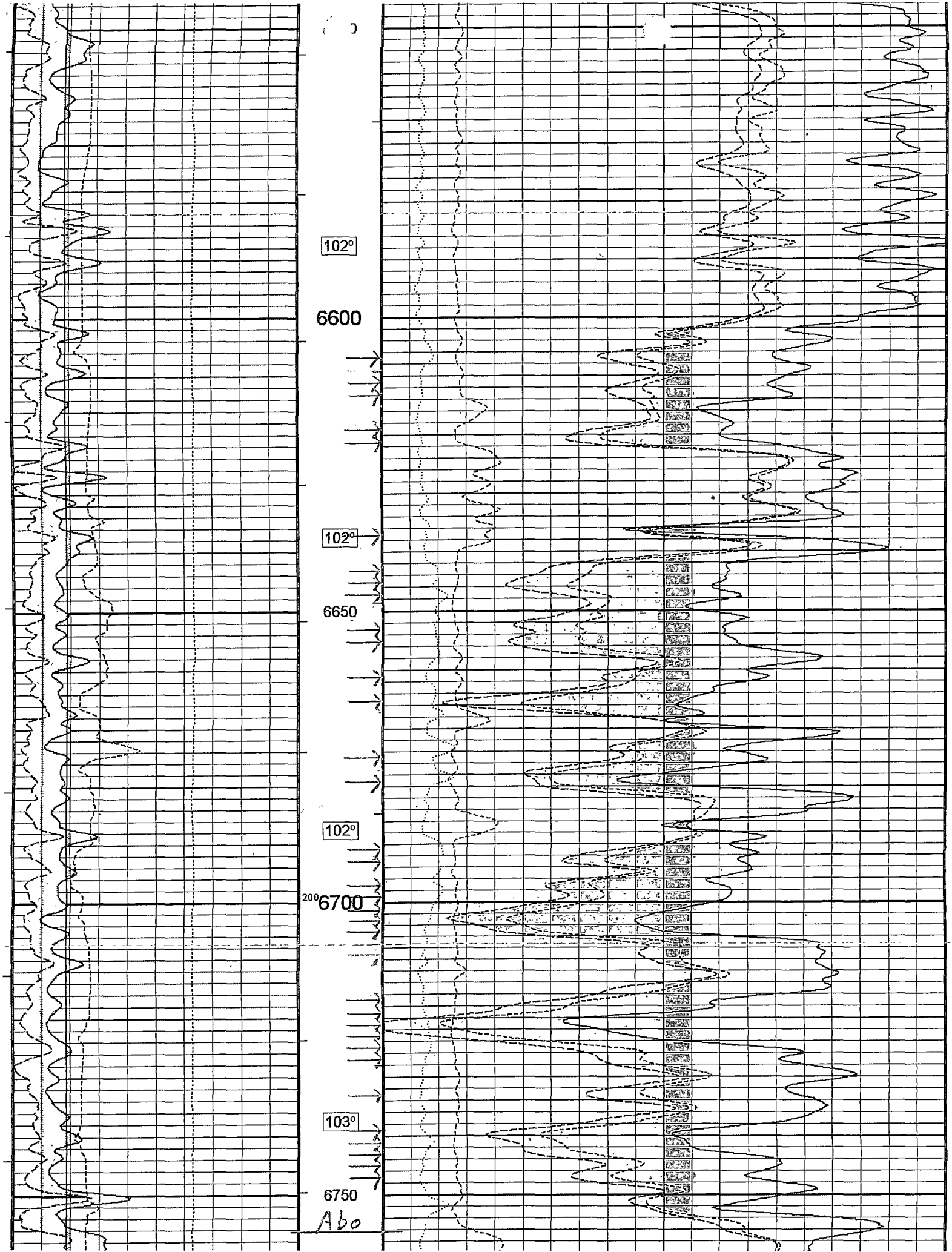
Tubb
6150
Mkr

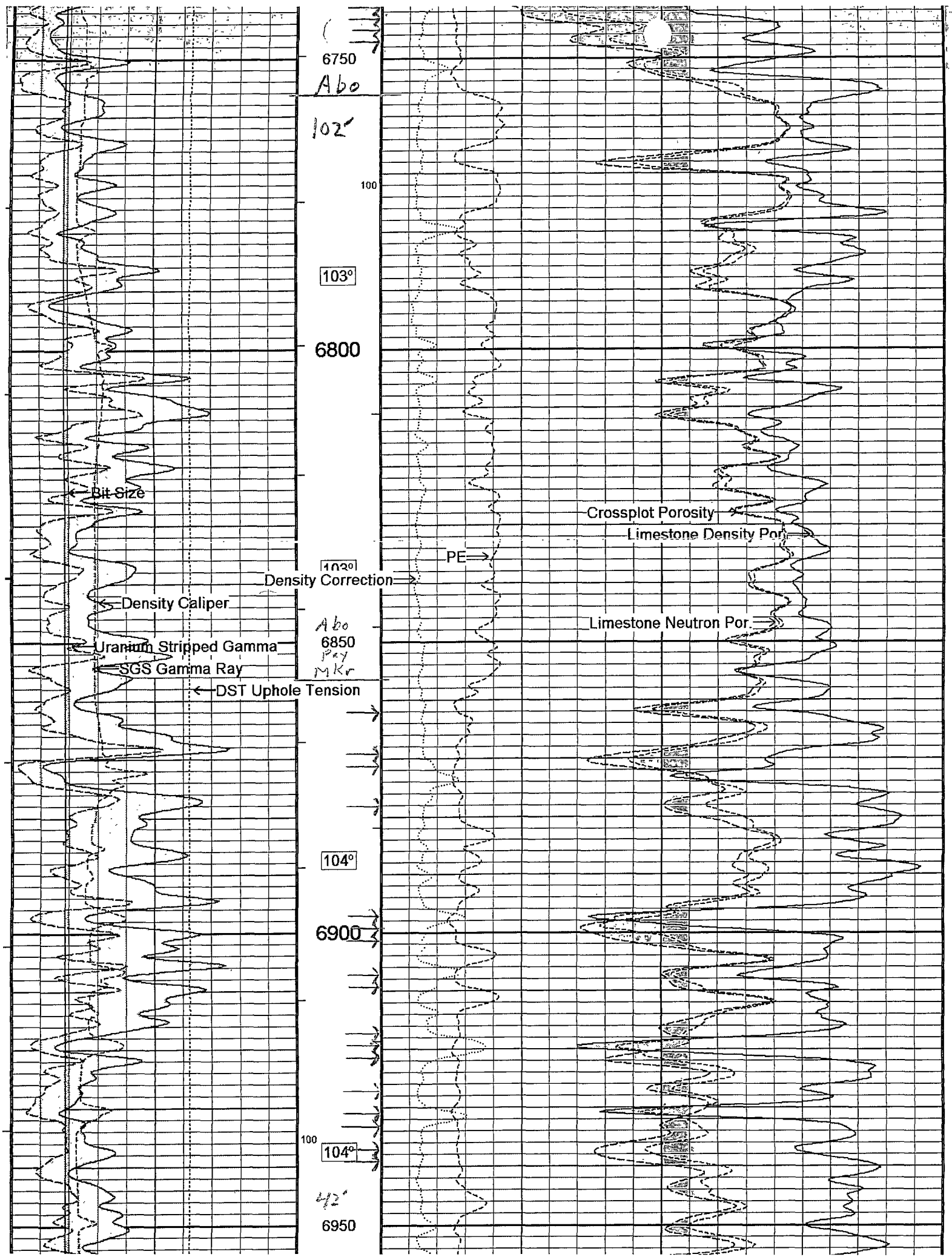
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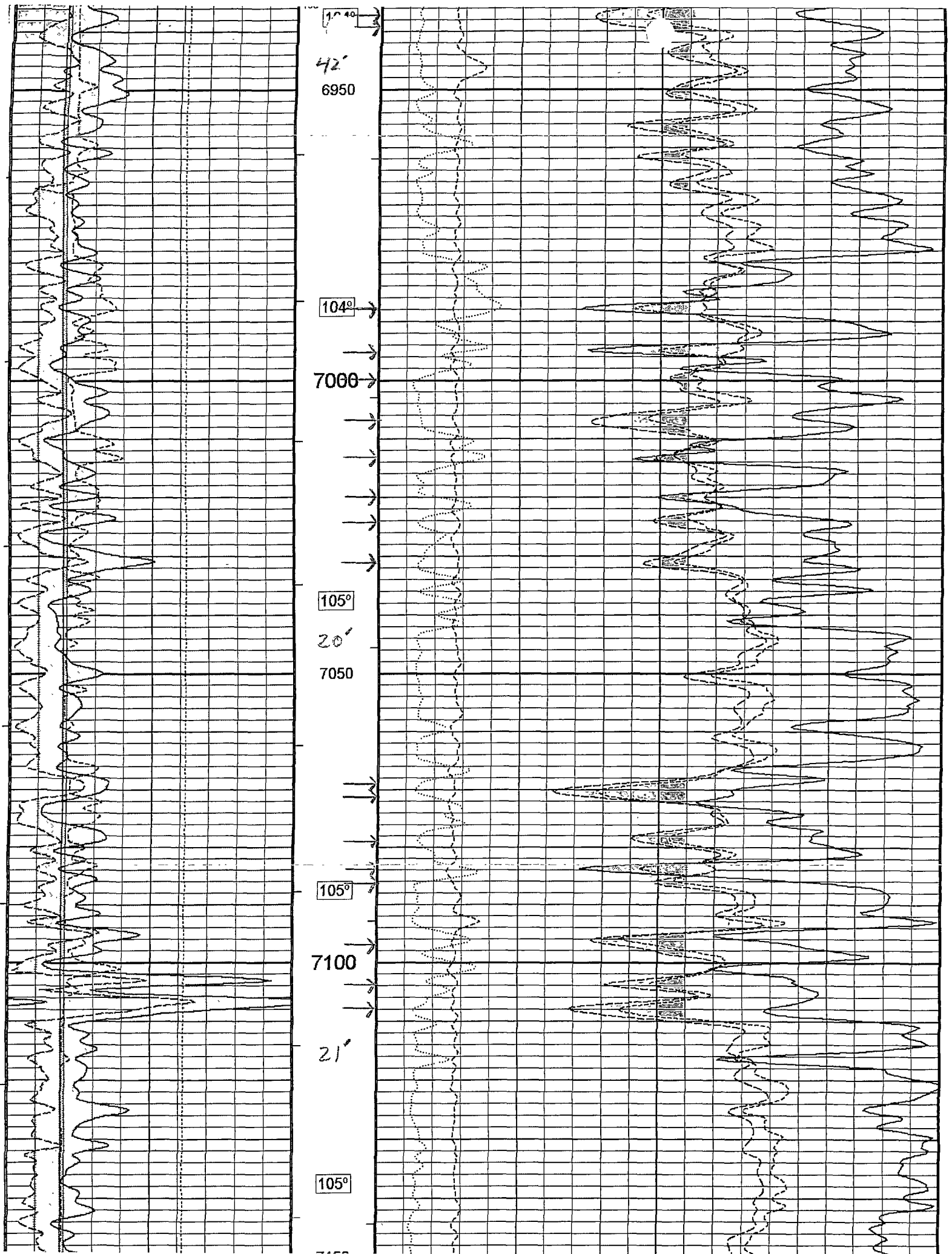
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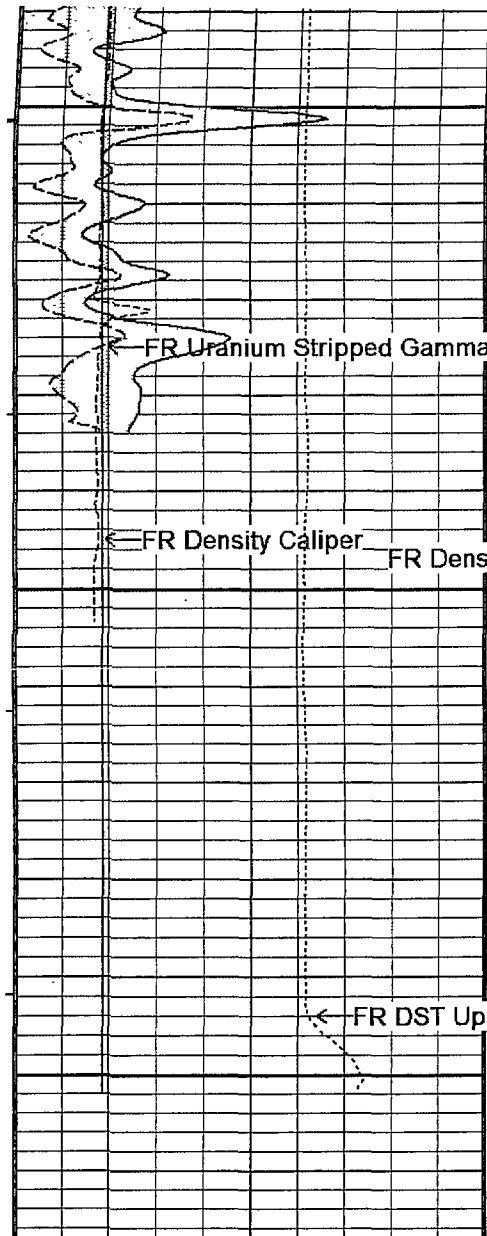












7150

FR Uranium Stripped Gammay

FR Density Caliper

FR Density Correction

FR PE

FR Limestone Neutron Por.

FR Crossplot Porosity

Limestone Density Por.

FR DST Uphole Tension

7200

7250

Depth
in
Feet

Timing Marks
every 60.0 sec

DST Uphole Tension
pounds

5000 2500 0
0 -2500 -5000

Borehole
Temp in
deg F

SGS Gamma Ray

API 0 75 150
150 225 300

HVI
every
10 cu ft

Uranium Stripped Gamma

API 0 75 150
150 225 300

Annular
Integral
every
10 cu ft

Density Correction
grams/cc

Limestone Neutron Por.
percent

30 20 10 0 -10

Limestone Density Por.
percent

30 20 10 0 -10

Crossplot Porosity
percent

30 20 10 0 -10