

RECEIVED

Form 3160-5
(March 2012)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

JAN 21 2014

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2014

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

5. Lease Serial No.
Jicarilla Apache Lease #417
6. If Indian, Allottee or Tribe Name
Jicarilla Apache Nation

SUBMIT IN TRIPLICATE - Other instructions on page 2.

1. Type of Well
 Oil Well Gas Well Other

7. If Unit of CA/Agreement, Name and/or No.

2. Name of Operator
Logos Operating, LLC

8. Well Name and No.
Jicarilla O 3E

3a. Address
4001 North Butler Avenue, Building 7101
Farmington, NM 87401

3b. Phone No. (include area code)
505-330-9333

9. API Well No.
30-043-21165

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
919' FSL, 1738' FEL
Section 10, T22N, R3W, UL O

10. Field and Pool or Exploratory Area
Lindrieth Gallup-Dakota, West

11. County or Parish, State
Sandoval County, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other <u>Production Casing</u>
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	<u>2nd Squeeze</u>
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

Logos Operating plans to squeeze the upper production casing per the attached procedure, which is to set a CBP @ 4120', PT 7" casing to 1000psi for 30min on a chart. Shoot 3 squeeze holes at 4000'. Pump cement, WOC, drill out cement. Run CBL and PT squeeze holes to 500psi for 30min on a chart. With good results Logos will proceed to drill out plugs and clean out to PBDT 6813', RIH with tubing, rods and pump. RD & MOL.

Received verbal approval from Troy Salyers (BLM) and Brandon Powell (OCD) on 01/21/14.

RCVD JAN 23 '14
OIL CONS. DIV.
DIST. 3

BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT BELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS

CONDITIONS OF APPROVAL
Adhere to previously issued stipulations.

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)
Tamra Sessions
Title Operations Technician
Signature *Tamra Sessions*
Date 01/21/2014

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by
Troy Salyers
Title *Petroleum Engineer* Date *1/22/2014*
Office *FFO*

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

NMOCDAV



**CASING SQUEEZE,
DRILL OUT PLUGS, RUN TBG AND RODS
PROCEDURE**

Jicarilla O #3E

919' FSL, 1738' FEL
UL O, Section 10, T22N, R03W
Sandoval County, New Mexico
LAT: 36.14663° N LONG: 107.14088° W
Lindrith Gallup-Dakota West

KG: Kristy Graham 1/21/2014 **Prepare/Production Engineer**
Date

DG: _____ **Approve/VP of Operations**
Date

KM: _____ **Approve/Artificial Lift Consultant**
Date

JPM: _____ **Approve/President**
Date

PROJECT OBJECTIVE:

Test casing, perforate circulation holes, and complete casing squeeze. Drill out cement, plugs, circulate hole clean to PBTD. Run tubing and rods.

CAPACITIES:

Capacity Between 7-7/8" hole and 5-1/2" Casing: 0.03086 BBL/ft
 Capacity of 2-7/8" Tubing: 0.00579 BBL/ft
 Capacity of 5-1/2" Casing: 0.0232 BBL/ft

WORKOVER PROCEDURE:

Deliver to location the following equipment:

1.	~6800' 2-7/8", 6.5#, J-55, EUE tubing to tag up
2.	Composite Bridge Plug for 5-1/2", 17#, P110 Casing
3.	Rig pit with 2% KCl
4.	Chart Recorder for Pressure Test
5.	4-3/4" PDC bit to drill out cement
6.	Wireline Perforating Unit – BlueJet
7.	Dry Cement to be mixed for cement job (bring full load of dry cement) – Lead: 542 sx Premium Lite High Strength FM, 0.3% bwoc CD-32, 2 lbs/sack LCM-1, 1% bwoc FL-52A, 102.1% fresh water (12.5 ppg (weight) with a yield of 1.99 cf/sx, mix water is 9.86 gal per sx) Tail: 50 sx Type III, 1% bwoc CaCl ₂ , 0.2% bwoc FL-52A, 59% fresh water (14.6 ppg (weight) with a yield of 1.38 cf/sx, mix water is 6.64 gal/sx) - Baker
8.	1 – 2-1/2" X 1-3/4" X 12' X 12'3" X 16 X 16"3 RHAC 2 STAGE HOLLOW VALVE ROD INSERT PUMP WITH A 5' SM GROOVED PLUNGER WITH BRASS NICKLE CARBIDE BARREL AND ALLOY/TUNGSTEN CARBIDE SEATS PRIMARY VALVE AND ALLOY/ALLOY SECONDARY VALVE AND REGULAR STEEL FITTINGS WITH -0.004" PLUNGER and -0.005" TOTAL PLUNGER TO BARREL CLEARANCE AND 12' DIP TUBE (no strainer nipple on bottom) - ENERGY PUMP & SUPPLY
9.	~233 – RODS 3/4" S88 HS RODS – Weatherford
10.	2 – 3/4" x 4' GUIDED ROD SUBS (MOLDED) - Weatherford
11.	1 – 1-1/2" X 26' POLISH ROD – Weatherford
12.	12 – 1-1/4" x 25' SINKER BARS – Weatherford
13.	ROD SUBS AS NECESSARY – Weatherford
14.	2 – 3/4" X 8' PONY ROD SUBS to be rotated one at a time to top of string every pull to change rod wear pattern in tubing - Weatherford
15.	Rod rotator – Big Red Tool
16.	26K shear tool – John Crane
17.	BHA - Bull Plugged 10' sub below slotted 31' joint with slots 16.5' & 17' from upset and vent slots 2' from upset below the SN – John Crane
18.	2-7/8" x 5-1/2" tubing anchor with carbide slips – John Crane
19.	2-7/8" x 1.10' S-Nipple (2.28" ID) – John Crane

1. Hold safety meeting. MIRU workover rig. Place fire and safety equipment in strategic locations. Comply with all LOGOS, Jicarilla, BLM and NMOCD rules and regulations.
2. Lay flow lines. Check and record casing pressure.
3. Rig up wireline and lubricator to set composite bridge plug under pressure.
4. TIH to set CBP @ 4120' (**based on CBL**).
5. TOOH with wireline.
6. Pressure test casing to 1000 PSI on chart recorder for 30 minutes and report results to Engineer.
7. TIH to perforate the casing with 3 holes @ 4000' (**based on CBL**) with 0.38 charges phased at 120 degrees.
8. TOOH with wireline and make sure all shots fired.
9. ND fracstack and install cement head.
10. Establish circulation through perforations at 2 BPM prior to pumping cement. Contact Engineer with established rate, pressure, and volume before pumping cement.
11. Mix and pump the following:
 - a. Lead: 542 sx Premium Lite High Strength FM, 0.3% bwoc CD-32, 2 lbs/sack LCM-1, 1% bwoc FL-52A, 102.1% fresh water (12.5 ppg (weight) with a yield of 1.99 cf/sx, mix water is 9.86 gal per sx)
 - b. Tail: 50 sx Type III, 1% bwoc CaCl₂, 0.2% bwoc FL-52A, 59% fresh water (14.6 ppg (weight) with a yield of 1.38 cf/sx, mix water is 6.64 gal/sx)
 - c. Drop wiper plug
 - d. Displace to 3900' with 90.5 bbls water
12. Hold **500 PSI** of pressure on casing and shut down for the day. Let cement setup overnight.
13. Pick up 4-3/4" PDC bit and 2-7/8", 6.5# J-55 tubing; and TIH to top cement. Drill out cement. Run CBL. Pressure test squeeze holes to 500 PSI on chart recorder for 30 minutes and report results to Engineer.
14. Drill out the plugs listed below:
 - **CBP @ 4120'**
 - **CFP @ 5580'** – This plug will have pressure below it.
 - **CFP @ 5820'**
 - **CFP @ 6490'** – This plug will have pressure below it.
15. Clean out to PBTD @ **6813'** and circulate hole clean.
16. TOOH with PDC bit and tubing. LD PDC bit.

17. TIH with BHA and 2-7/8" production tubing. (See below.) Set EOT at **6200'** (bottom perf is 6732').

Number	Description
1	Bull Plugged 10' sub below slotted 31' joint with slots 16.5' & 17' from upset and vent slots 2' from upset below the SN @ 6158'
1	2-7/8" x 1.10' S-Nipple (2.28" ID) @ ~6158'
~31	2-7/8" 6.5# J-55 tubing joints
1	2-7/8" x 5-1/2" tubing anchor with carbide slips set @ ~ 5168' (~90' above top perf @ 5258', ~ 30 joints above the SN)
~159	2-7/8" 6.5# J-55 tubing joints

18. ND BOP, NU WH. Install rod rotator.

19. RIH with rods and pump. (See below.)

Number	Description
1	1-1/4" x 12' dip tube (no strainer nipple on bottom)
1	2-1/2" X 1-3/4" X 12' X 12'3" X 16 X 16"3 RHAC 2 STAGE HOLLOW VALVE ROD INSERT PUMP WITH A 5' SM GROOVED PLUNGER WITH BRASS NICKLE CARBIDE BARREL AND ALLOY/TUNGSTEN CARBIDE SEATS PRIMARY VALVE AND ALLOY/ALLOY SECONDARY VALVE AND REGULAR STEEL FITTINGS WITH -0.004" PLUNGER and -0.005" TOTAL PLUNGER TO BARREL CLEARANCE
2	3/4" x 4' guided rod subs with molds
1	26K shear tool
12	1-1/4" x 25' sinker bars
2	3/4" x 8' pony rod subs to be rotate one at a time to top of string every pull to change rod wear pattern in tubing
~233	3/4" S-88 rods
	rod subs as necessary to space out
1	1-1/2" x 26' spray polish rod with clamps

20. Lower to a LIGHT tag. Mark the position of the tag on the polished rod. Lift the polished rod and space out ~1"/1000'. Load tubing with water to pressure test tubing and pump to 500 psi. Test for good pump action. RD MOL.

Contacts

Kristy Graham – Production Engineer

Office (505) 436-2627 or Cell (505) 402-6361

David Gonzales - Vice President of Operations

Office (505) 436-2626 or Cell (505) 215-8215

Wayne Ritter – Production Manager

Cell (505) 320-0436

Joey Robinson – Consultant

Cell (505) 330-2196 or (505) 320-1740

Larry Candelaria – Consultant

Cell (505) 330-7065 or (713) 493-0957

Art Sullivan – Production Foreman

Cell (505) 320-1983

Dave McWilliams – WSS Construction and Lybrook Yard Owner

Cell (505) 320-1515 or (505) 635-1581

Blue Jet– Wireline Perforating

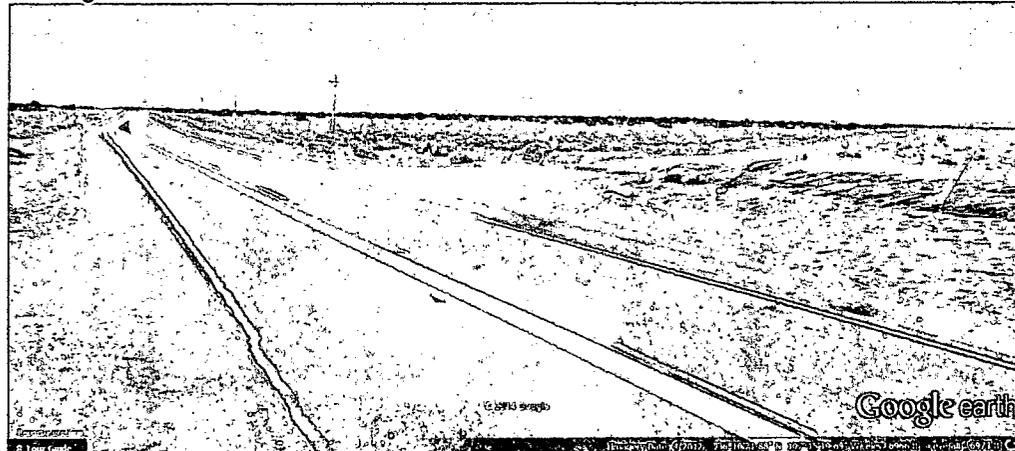
Cell (505) 320-0172

Directions to Location

From Bloomfield, head south on Hwy 550 and turn left (heading north) after mile marker 85 onto 537 (Between Gas Station and Casino). Follow 537 ~1.9 miles and turn right onto dirt road. Follow the dirt road ~6.9 miles to the Jicarilla O 3E location.



Turn right from 537 onto dirt road.





**CEMENT EVALUATION LOG
RADII SECTOR TOOL
FINAL PRINT**

LOGS COMPANY WELL FIELD COUNTY STATE	Company LOGOS Well JICARILLA APACHE 0 #3E Field DAKOTA GALLUP County SANDOVAL State NM				
	Location: APTS: 30-043-21165 919' FEL & 1738' FEL				Other Services
	SEC 10 TWP 22N RGE 3W				
	Permanent Datum G.L. Elevation 7072'		Elevation N.M. 7067 D.F. NM G.L. 7072		
Log Measured From RKE 15'		Drilling Measured From BIG KELLY BUSHING			
Date 12/20/13					
Run Number 09E					
Depth Driller 6811'					
Depth Logger 6811'					
Logged Interval 6800'					
Top Log Interval SURF.					
Open Hole Size 7-5/8"					
Type Fluid H2o					
Density / Viscosity					
Max. Recorded Temp.					
Estimated Cement Top					
Time Well Ready 09:30					
Time Logger on Bottom 10:00					
Equipment Number D-8 SDS RADII22					
Location FRM					
Recorded By T. LUTHER					
Witnessed By MR. LARRY CANDILARIA					
Borehole Record			Tubing Record		
Run Number	Bit	From	To	Size	Weight
Casing Record		Size	Wgt/T	Top	Bottom
Surface String		9 5/8"	388 J-55	SURF.	NB
Prot. String					
Production String		5.5'	17# P-110	SURF.	6811'
Liner					

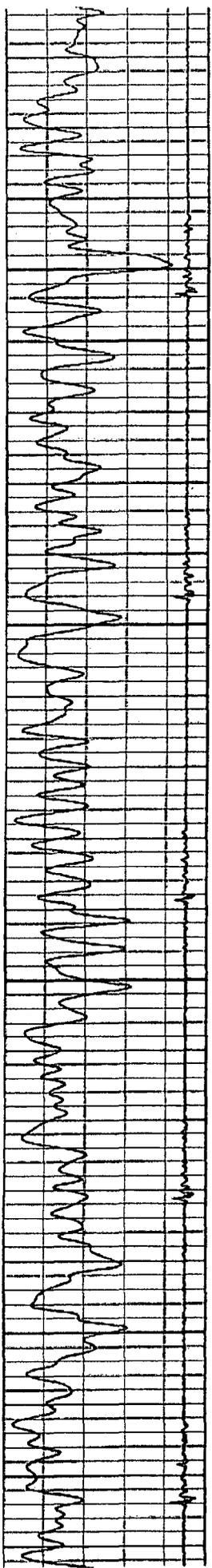
<<< Fold Here >>>

All interpretations are opinions based on information from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

LOG IS NOT CORRELATED TO ANY OTHER LOG

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)				
				2.88	2.75	35.00	---Probe (PTS_MONO)			

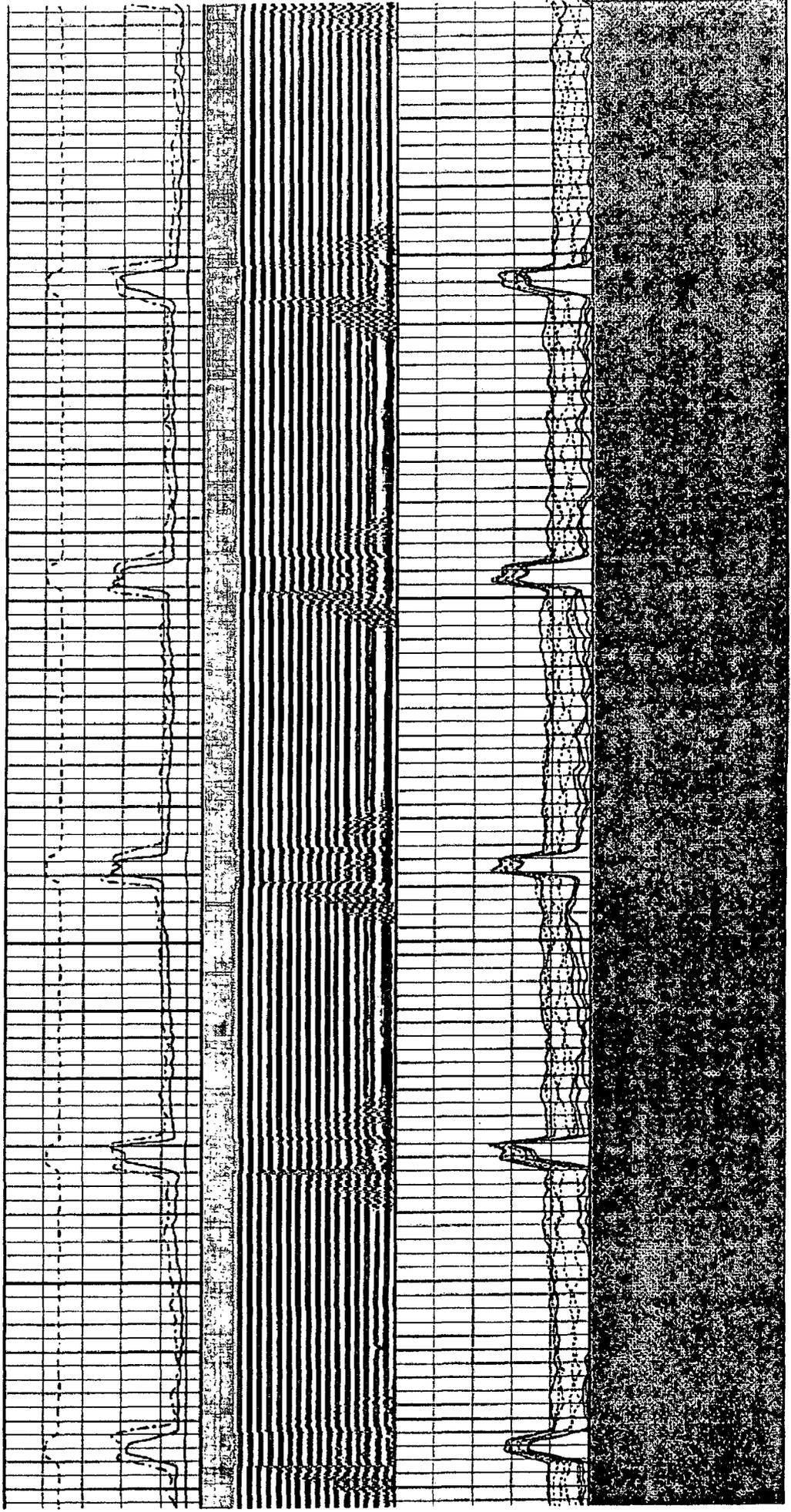


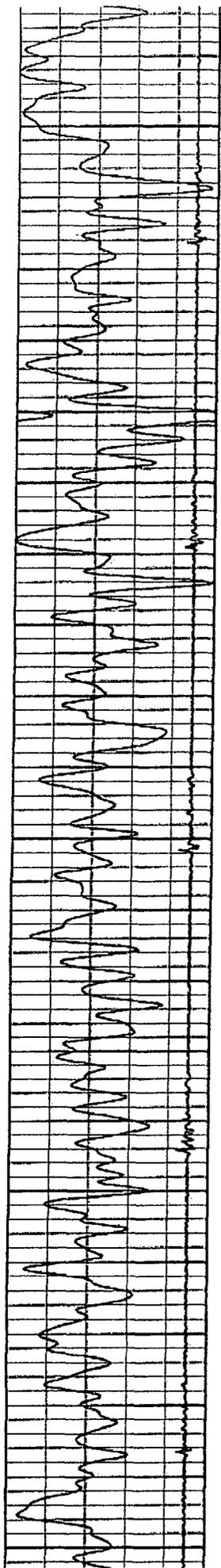
3750

3800

3850

3900





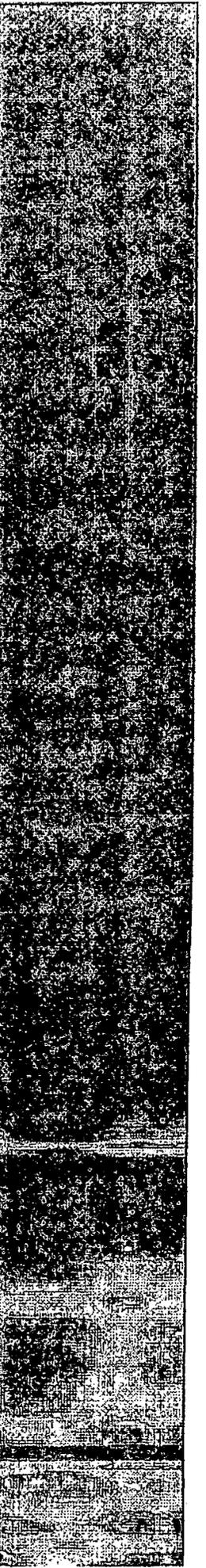
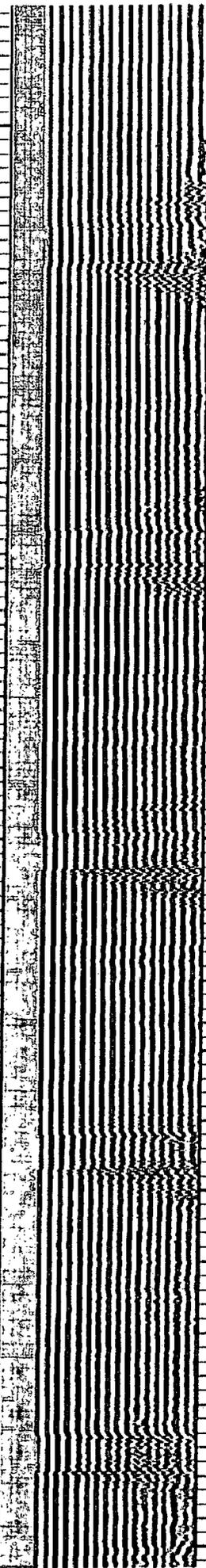
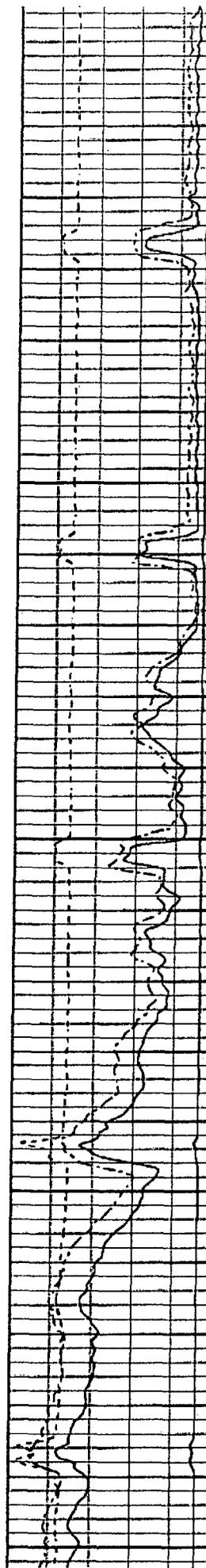
3950

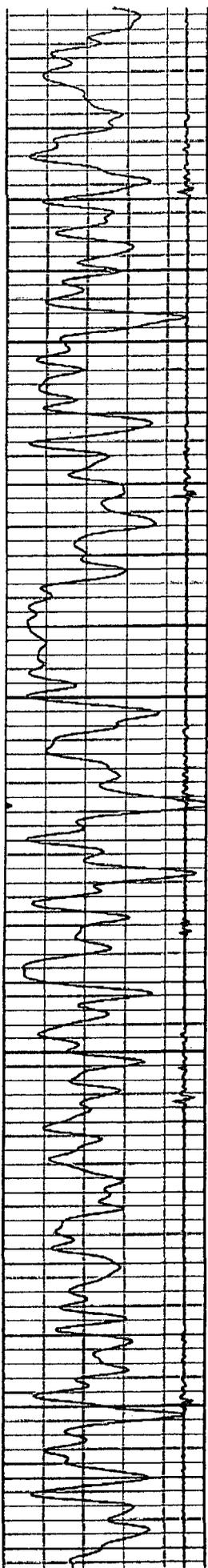
4000

4050

4100

4150



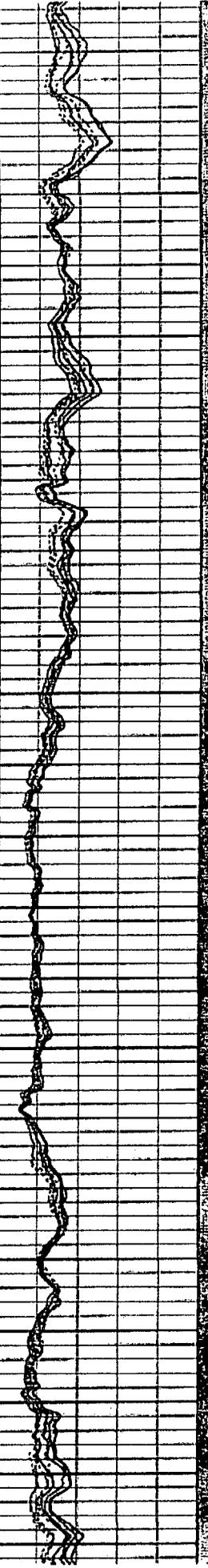
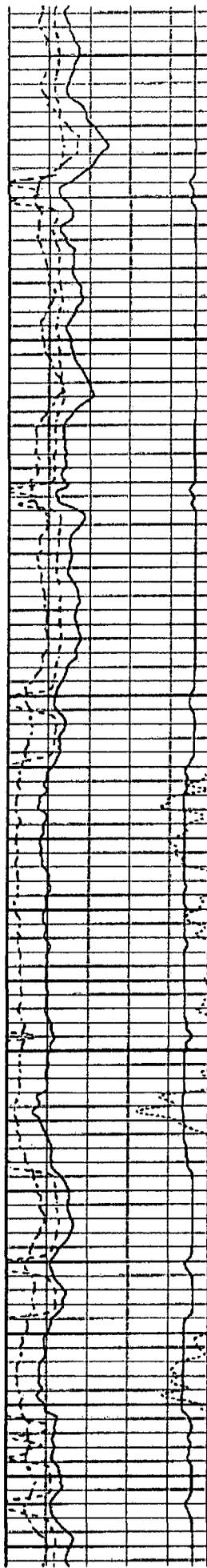


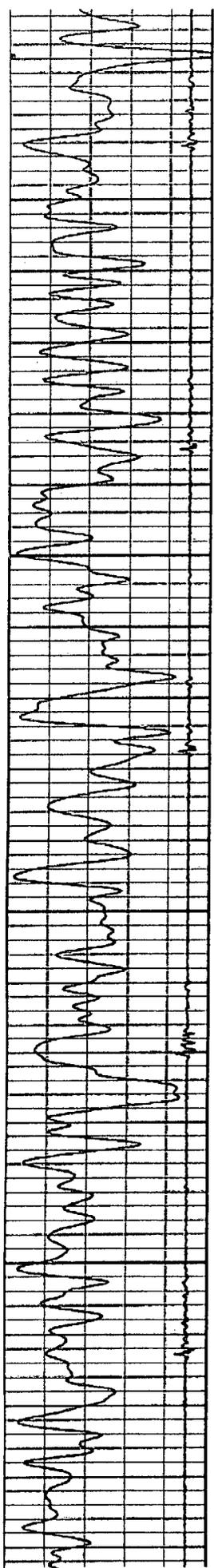
4200

4250

4300

4350





4400

4450

4500

4550

