F. S. (Stan) Borst—MI 2-2065
M. E. (Mel) Borst—MI 2-2851

Borst & Giddens Logging Service

P. O. BOX 146 — VENTURA, CALIFORNIA

L. H. Reed
Kermit Giddens
MI 2-5078

COMPANY	HUMBLE OIL & REFINING COMPANY
WELL	D. J. LEAVITT NO. 1
FIELD	THOMAS CREEK AREA

LOGGING ENGINEERS
F. S. BORST
LEE HOWARD

LOCATION	SEC. 2, T40S, R20E IN LAKE COUNTY, OREGON
ELEVATION	4783' GR. 4796.3' K.B.
CASING	705'- 16"
HOLE SIZE	10 5/8"-8887', 9 7/8"-T.D.
DEPTH FROM	61' TO 9579'
DATE	FROM 12/14/60 TO 2/18/61

COUNTY	LAKE
STATE	OREGON

OIL SHOW EVALUATIONS CCl_4

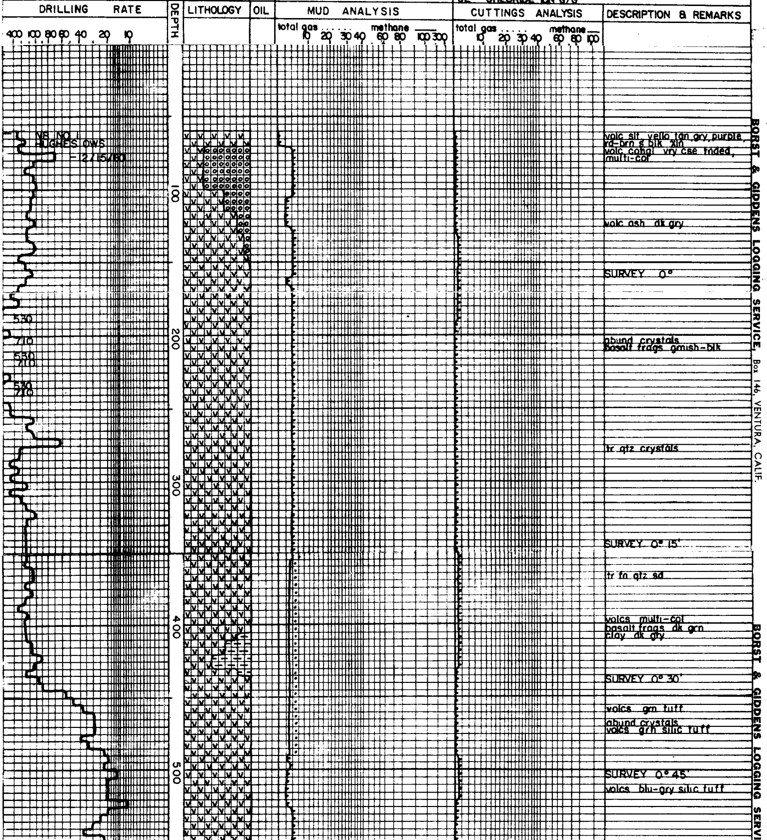
- TRACE
- FAIR
- GOOD
- VERY GOOD

LEGEND

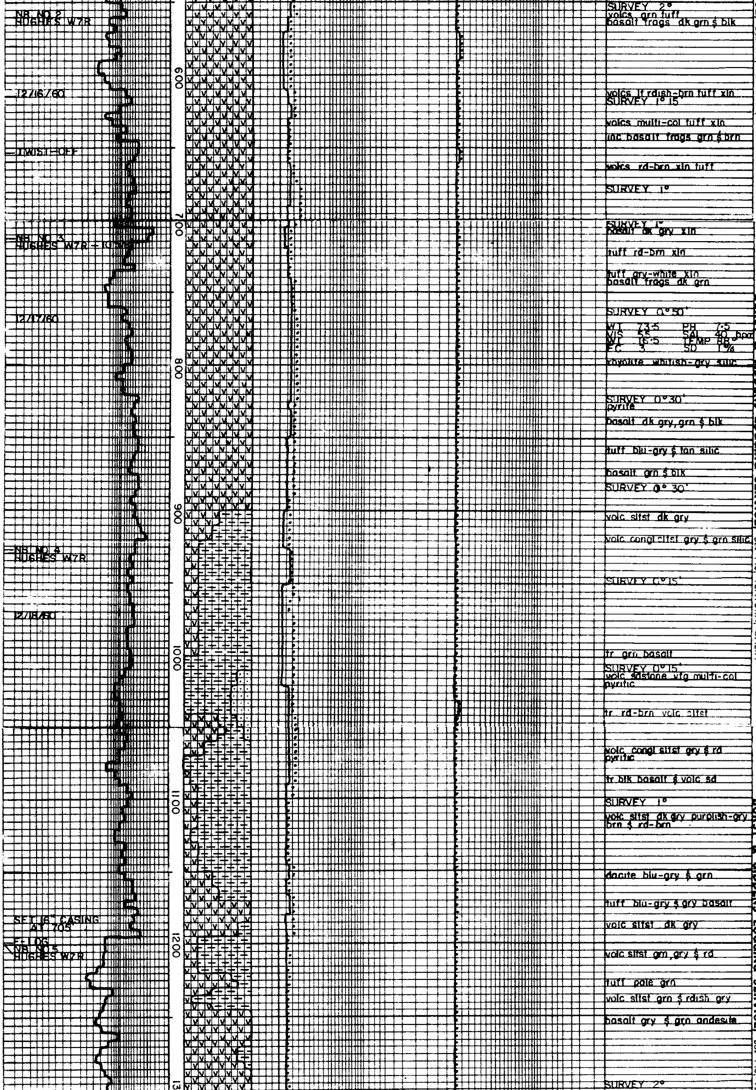
NB	NEW BIT
NCB	NEW CORE BIT
NR	NO RETURNS
CO	CIRCULATE OUT
DST	DRILL STEM TEST
TG	TRIP GAS
WT	MUD WEIGHT
VIS	VISCOSITY
WL	WATER LOSS
CL	CHLORIDE ION G/G

LITHOLOGY

SAND	VOLCS
SHALE	CHERT
LIME	CONGL



volc slt, yello tan gry purple, rd-brn & blk xln
volc conql vry cse rnded, multi-col
volc ash dk gry
SURVEY 0°
abund crystals
basalt frags grnish-blk
tr qtz crystals
SURVEY 0° 15'
tr fn qtz sd
volcs multi-col
basalt frags dk grn
clay dk gry
SURVEY 0° 30'
volcs grn tuff
abund crystals
volcs grn silic tuff
SURVEY 0° 45'
volcs blu-gry silic tuff



SURVEY 2°
volcs grn tuff
basalt frags dk grn $ blk
volcs lt rdish-brn tuff xln
SURVEY 1° 15'
volcs multi-col tuff xln
inc basalt frags grn $ brn
volcs rd-brn xln tuff
SURVEY 1°
SURVEY 1°
basalt dk gry xln
tuff rd-brn xln
tuff gry-white xln
basalt frags dk grn
SURVEY 0°50'

WT	73.5	PH	7.5
VIS	55	SAL	40 ppm
WL	16.5	TEMP	88°
FC	3	SD	1%

rhyolite whitish-gry silic
SURVEY 0°30'
pyrite
basalt dk gry, grn $ blk
tuff blu-gry $ tan silic
basalt grn $ blk
SURVEY 0° 30'
volc sltst dk gry
volc congl sltst gry $ grn silic
SURVEY 0°15'
tr grn basalt
SURVEY 0°15'
volc sdstone vfg multi-col
pyritic
tr rd-brn volc sltst
volc congl sltst gry $ rd
pyritic
tr blk basalt $ volc sd
SURVEY 1°
volc sltst dk gry purplish-gry
brn $ rd-brn
dacite blu-gry $ grn
tuff blu-gry $ gry basalt
volc sltst dk gry
volc sltst grn, gry $ rd
tuff pale grn
volc sltst grn $ rdish gry
basalt gry $ grn andesite
SURVEY 2°

CE, Box 146, VENTURA, CALIF.

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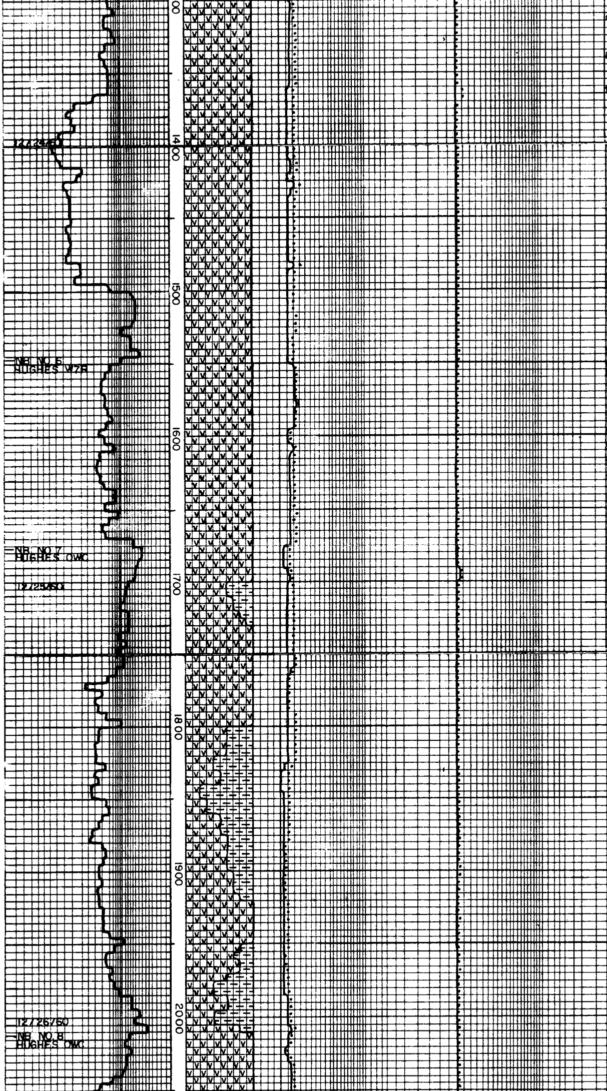

abund calcite

pyrite

tuff white, xln, pyritic, vry sdy

tuff, wh. xln. v/ sdy. w/ frags
grn. $ gry. basalt

SURVEY 2° 45'

andesite, grn., gry. $ grnish/brn
w/ basalt frags.

basalt, andesite, $ xln. tuff
grn., blk, bl., gry. $ wh.

SURVEY 3° 30'

volcs brn grn $ white
frags gry basalt

volcs lt grn $ gry-grn

SURVEY 3° 30'

volcs brn $ gry-brn

tr rdish-orange volc sltst

volcs lt grn silic

volcs dk purplish-gry, slty

SURVEY 4° 30'
volcs gry $ brn slty, pyritic

reduce wt to straighten hole

volcs, multi-col

volc. sltst, gryish/rd. $ grnish/
gry.

SURVEY 3° 30'

volcs gry-grn $ white xln

volcs dk gry-grn slty, xln

SURVEY 3° 15'
volc sltst gry-brn

volcs blue-grn xln

SURVEY 3° 30'

volcs dk gry $ purplish gry,
silic
volcs lt $ med grn $ white xln
pyrite

volc sltst brn $ redish-gry

SURVEY 5°
volcs multi-col, congl

SURVEY 4° 30'

volcs, multi-col slty. congl

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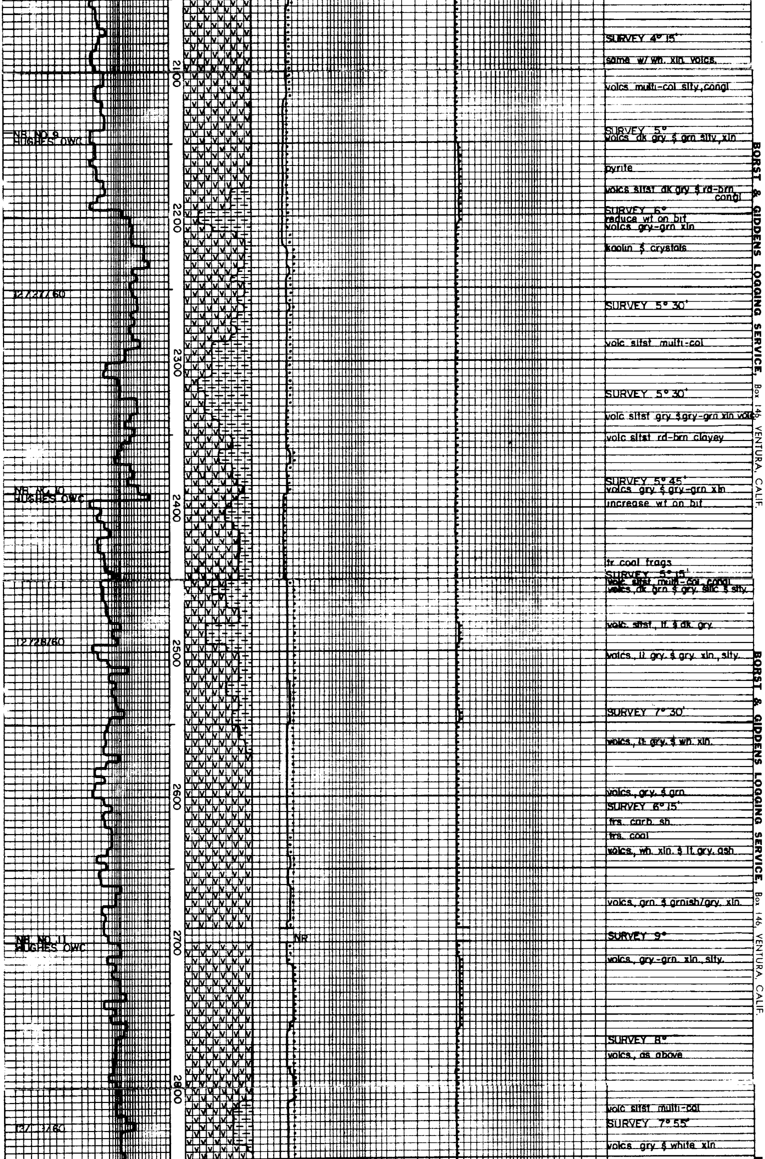

NB NO 9
HUGHES OWC

12/27/60

NB NO 10
HUGHES OWC

12/28/60

NB NO 11
HUGHES OWC

12/[illegible]/60

SURVEY 4° 15'

same w/ wh. xln. volcs.

volcs multi-col slty, congl

SURVEY 5°
volcs dk gry $ grn slty, xln

pyrite

volcs sltst dk gry $ rd-brn congl

SURVEY 6°
reduce wt on bit
volcs gry-grn xln

kaolin $ crystals

SURVEY 5° 30'

volc sltst multi-col

SURVEY 5° 30'

volc sltst gry $ gry-grn xln volcs

volc sltst rd-brn clayey

SURVEY 5° 45'
volcs gry $ gry-grn xln

increase wt on bit

tr coal frags
SURVEY 5° 15'
volc sltst multi-col congl
volcs dk grn $ gry. silic $ slty.

volc. sltst., lt $ dk gry

volcs., lt gry. $ gry. xln., slty.

SURVEY 7° 30'

volcs., lt gry. $ wh. xln.

volcs., gry. $ grn.
SURVEY 6° 15'
frs. carb. sh.
frs. coal
volcs., wh. xln. $ lt gry. ash

volcs., grn. $ grnish/gry. xln.

SURVEY 9°

volcs., gry-grn. xln., slty.

SURVEY 8°
volcs., as above

volc sltst multi-col
SURVEY 7° 55'

volcs gry $ white xln

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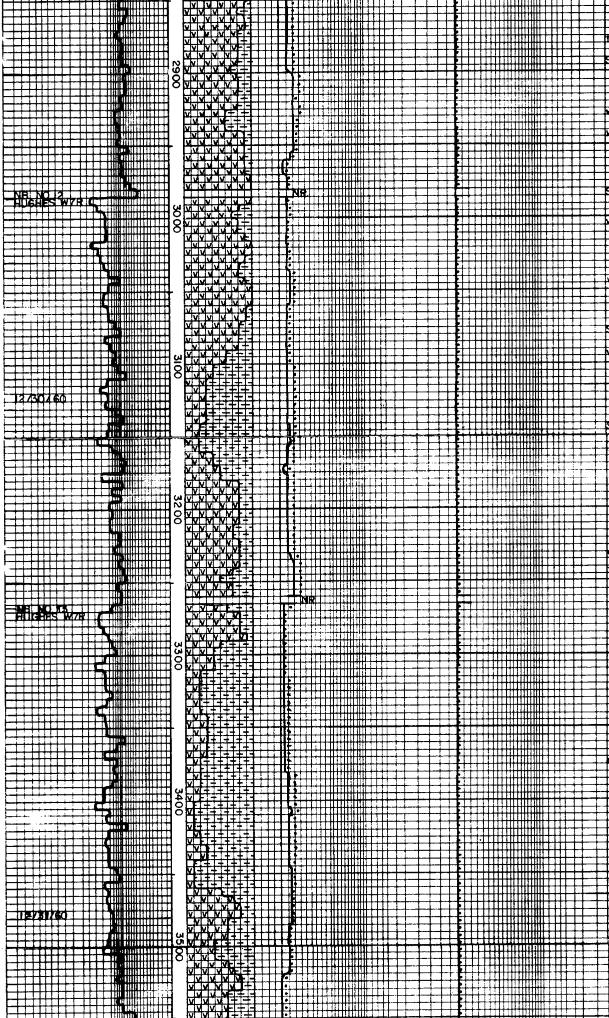

tr rd-brn volc sltst

SURVEY 7°

volc sltst gry

volcs lt gry $ gry slty

SURVEY 4° 45

volcs gry $ grn w/gry volc sltst

volcs white xln

SURVEY 6°

volc sltst lt gry

SURVEY 6°

volcs, gry silic. $ wh. xln.

volc. sltst, lt. gry.

volcs., gry. $ grn. xln. $ slty.

volc. sltst., dk. gry.

SURVEY 5°

volc. sltst., lt. gry. ashy

SURVEY 5°

volc. sltst., gry. $ gry./brn.

volc. sltst., rd./brn. congl.

volc. sltst., lt. gry.

volc. ash, lt. gry.

SURVEY 5° 45'

volcs lt gry ashy

volcs dk grn xln

volc sltst gry $ grn ashy

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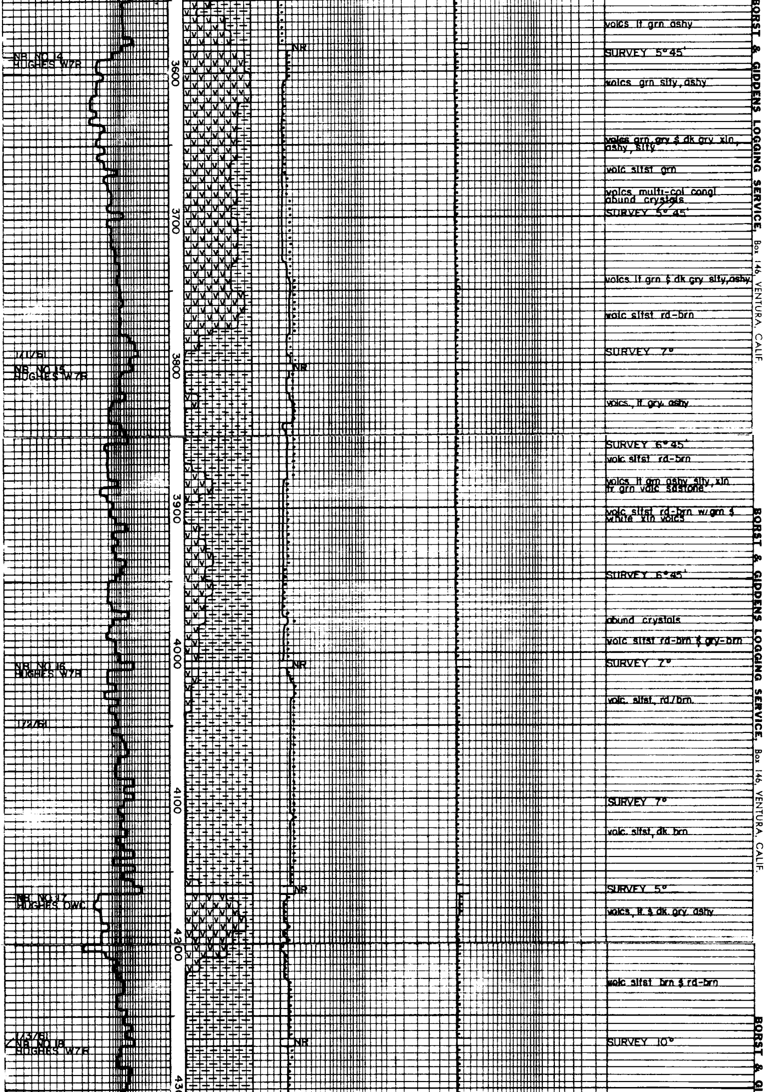

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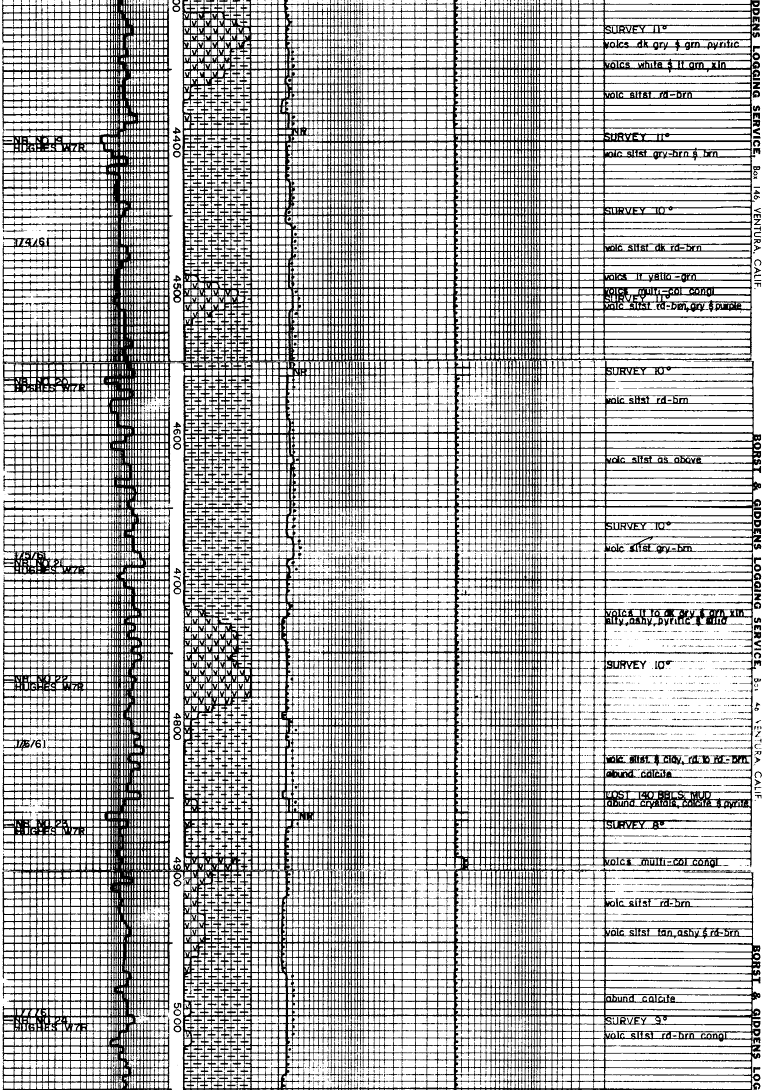
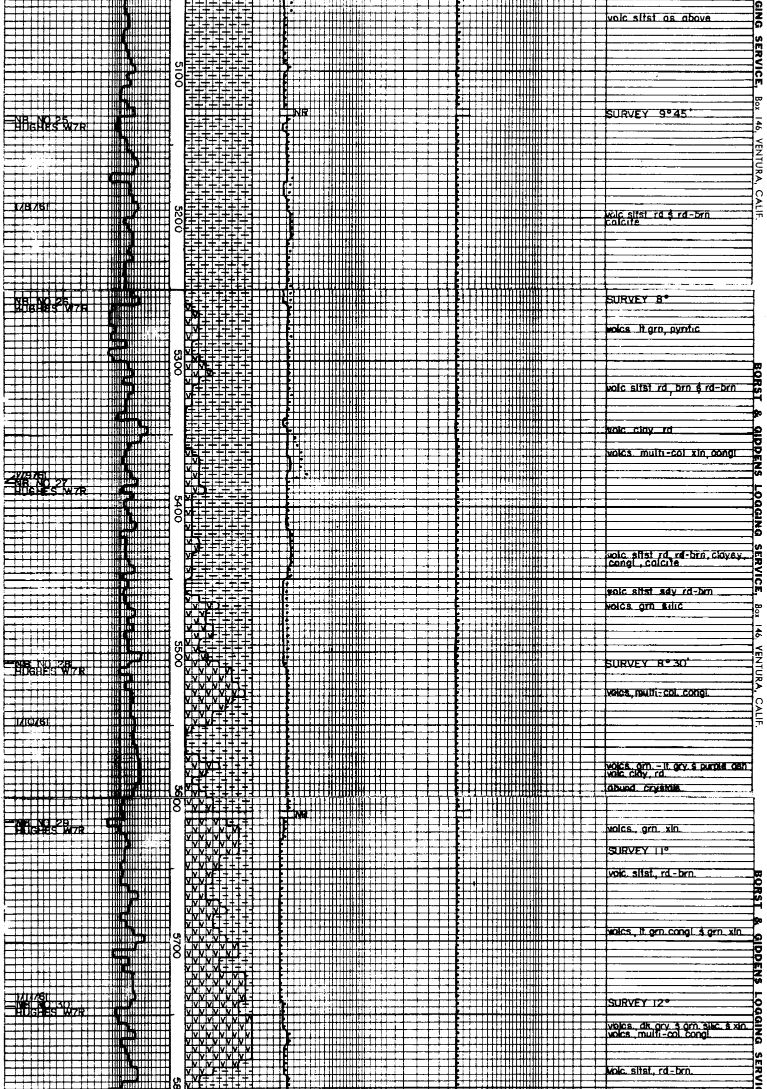
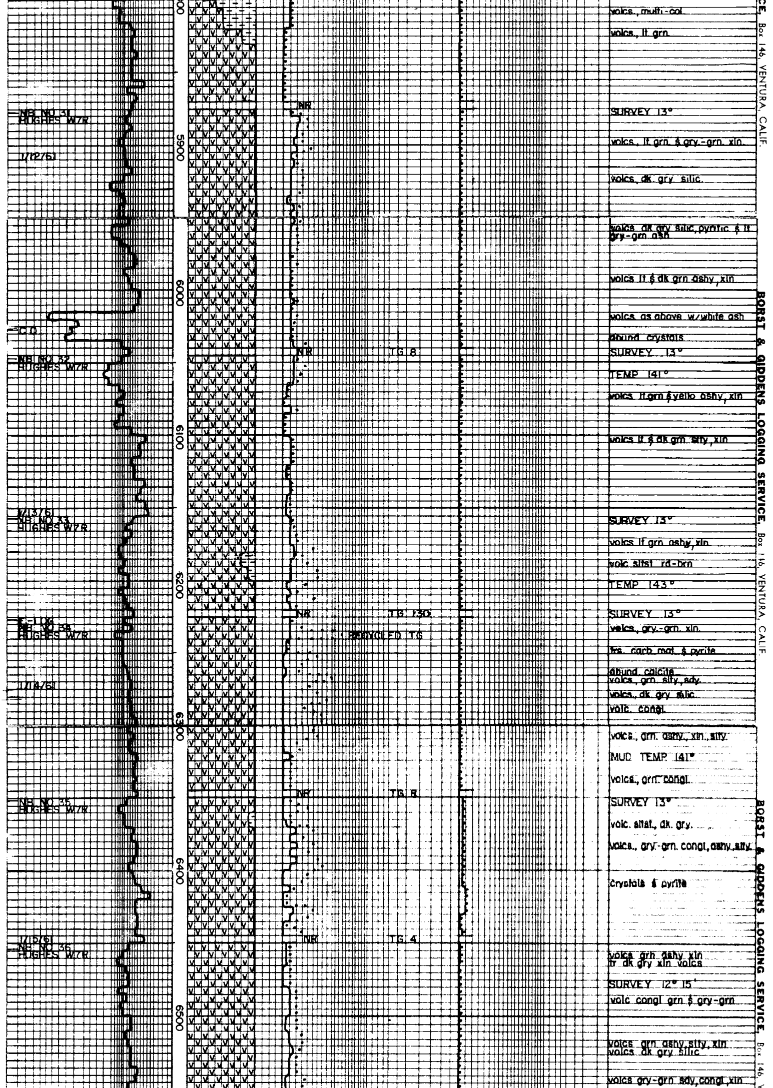
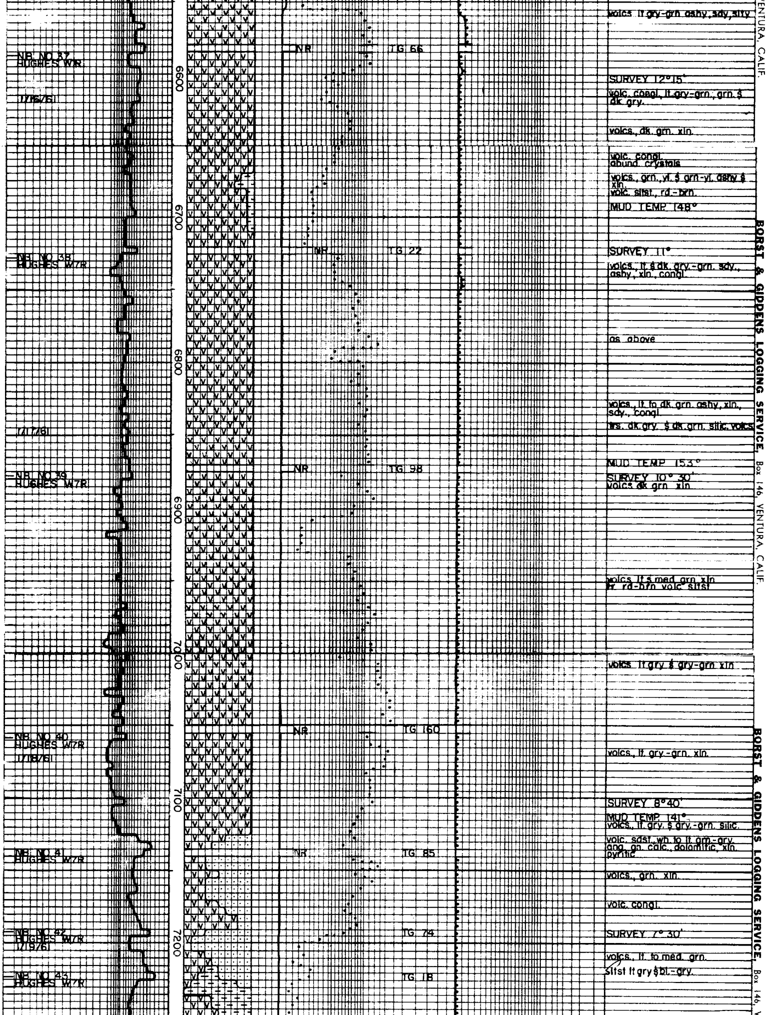
BORST & GI









volcs lt gry-grn ashy, sdy, slty

SURVEY 12°15'

volc. congl, lt gry-grn, grn & dk gry.

volcs., dk. grn. xln.

volc. congl.
abund. crystals

volcs., grn., yl. & grn-yl. ashy & xln.
volc. sltst., rd.-brn.

MUD TEMP 148°

SURVEY 11°

volcs., lt & dk. gry.-grn. sdy., ashy, xln., congl.

as above

volcs., lt. to dk. grn. ashy, xln., sdy., congl.
trs. dk.gry. & dk.grn. silic. volcs

MUD TEMP 153°

SURVEY 10° 30'
volcs dk grn xln

volcs lt & med grn xln
tr rd-brn volc sltst

volcs lt gry & gry-grn xln

volcs., lt. gry.-grn. xln.

SURVEY 8°40'

MUD TEMP 141°
volcs., lt. gry. & gry.-grn. silic.

volc. sdst., wh to lt grn-gry, ang, gn. calc., dolomitic, xln. pyritic

volcs., grn. xln.

volc. congl.

SURVEY 7° 30'

volcs., lt. to med. grn.
Sltst lt gry & bl.-gry.

VENTURA, CALIF.
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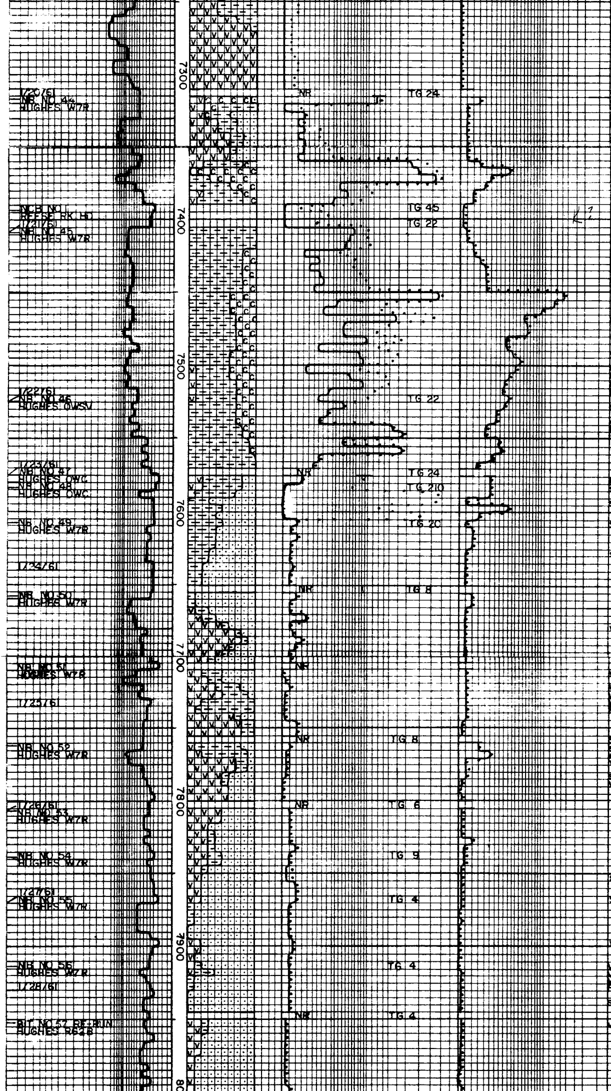


1/20/61
NB NO 44
HUGHES W7R

NCB NO 1
REESE RK HD
1/21/61
NB NO 45
HUGHES W7R

1/22/61
NB NO 46
HUGHES OWSV

1/23/61
NB NO 47
HUGHES OWC
NB NO 48
HUGHES OWC

NB NO 49
HUGHES W7R

1/24/61

NB NO 50
HUGHES W7R

NB NO 51
HUGHES W7R

1/25/61

NB NO 52
HUGHES W7R

1/26/61
NB NO 53
HUGHES W7R

NB NO 54
HUGHES W7R

1/27/61
NB NO 55
HUGHES W7R

NB NO 56
HUGHES W7R
1/28/61

BIT NO 57 RE-RUN
HUGHES R62B

volcs., lt buff $ lt gry. silic.

trs carb mat.

tr coal

SURVEY 12°
coal blk soft pyritic
sltst bl-gry
sdstone vfg gry-grn
volcs dk bl-gry

volcs grn xln, sdy

sdstone fn-med gry calc cmtd
coal $ blk carb sh

volcs grn xln

C-1 (7394-7409) REC 11' BLU-GRY SH W/CARB MAT POSS 25-30° DIP. NO SHOWS

sh. blk carb $ blu-gry. coal

MUD TEMP 149°

sh $ coal as above

SURVEY 16°

WT 77 PH 7.5
VIS 60 SAL 300 ppm
WL 13.5 SD 2%
FC 3 TEMP 149°

sh blu-gry, blk carb $ coal

abund cutts due to slough bypassing shakers

REDUCE WT
sd cse white pyritic

sh as above

SURVEY 15° INC. WT

sd as above

volcs, lt grn.

volcs lt grn xln

WT 73.5 PH 7.7
VIS 41 SAL 300 ppm
WL 11 SD 2%
FC 3 TEMP 140°

SURVEY 16°
sh blk carb, gry $ blu-gry coal frags
volcs lt gry-grn xln

sdstone fn grnd gry-grn, slty
volc ash gry-white pyrite

sdst. as above

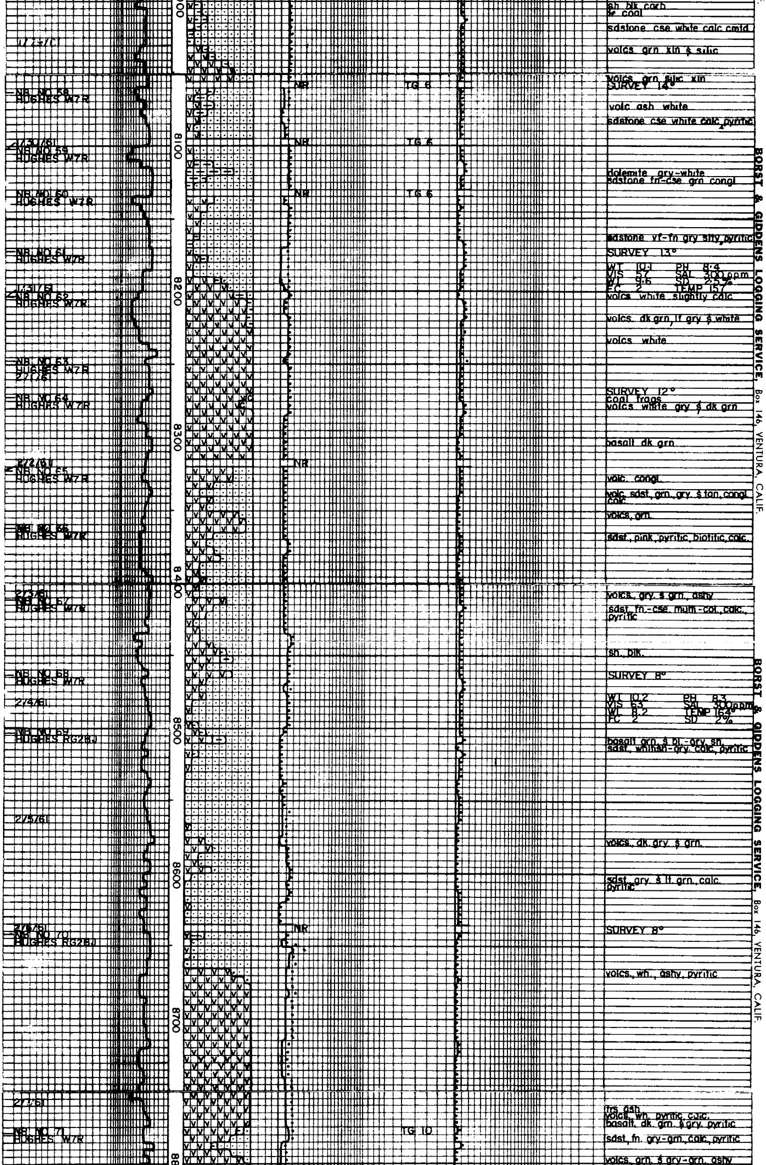
SURVEY 16°

volcs., grn. $ wh. ashy

WT 75 PH 8
VIS 42 SAL 380 ppm
WL 9 SD 3%
FC 3 TEMP 145°

sdstone lt grn pyritic

volcs grn ashy



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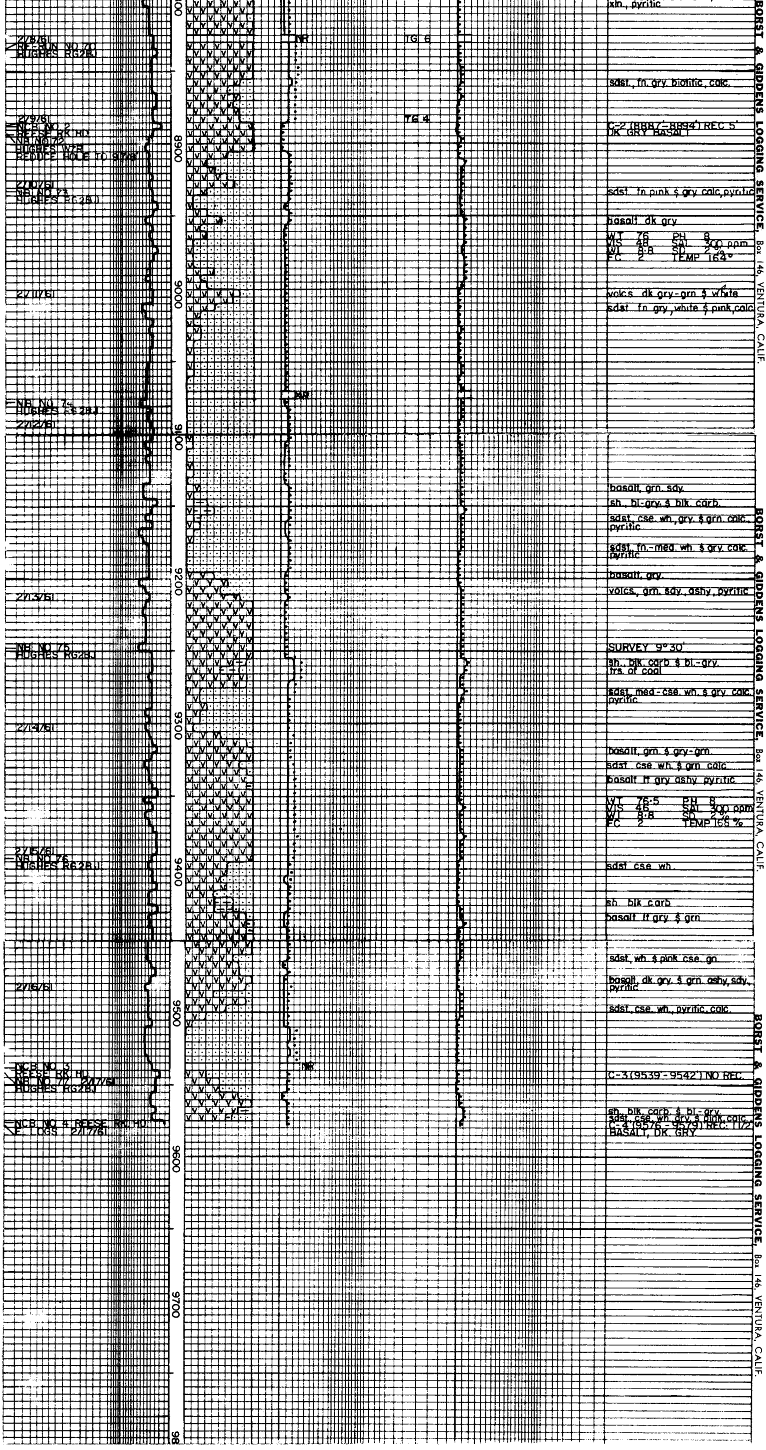

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