

FORMATION TESTING

Technical Report

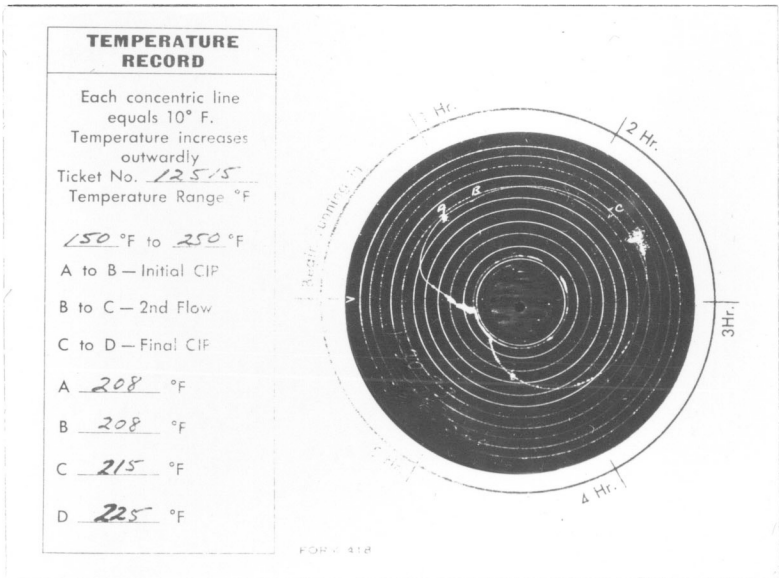
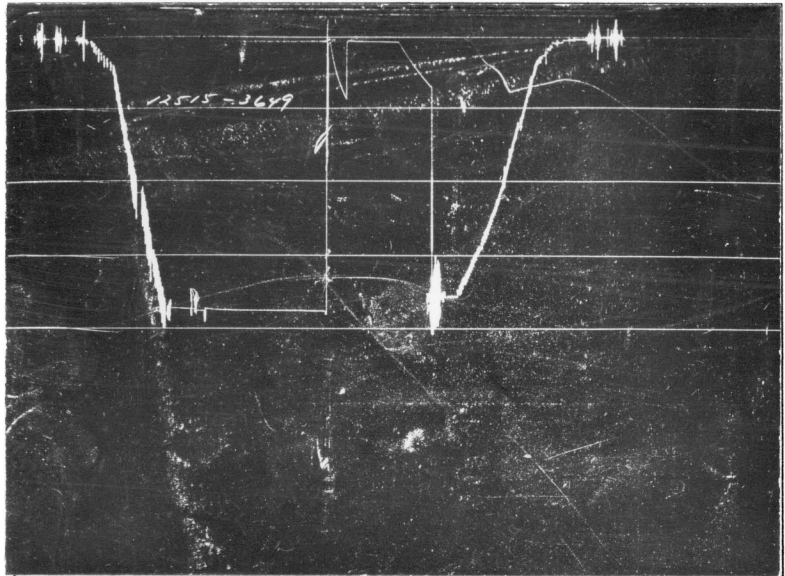
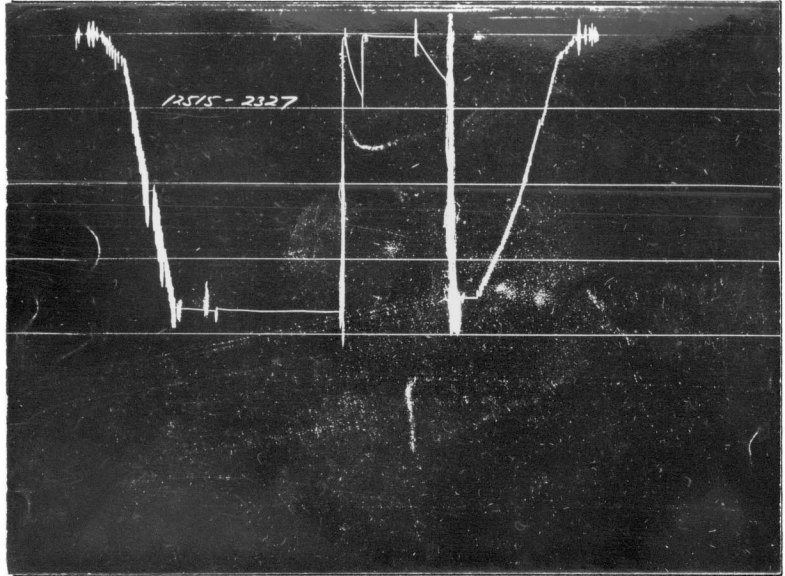


CALGARY, ALBERTA

A **Halliburton** Company

PRESSURE
 TIME

Each horizontal line equal to 1000 psi





FORMATION TESTING
DATA SHEET

REFER TO INVOICE NO. 12515

HALLIBURTON DISTRICT
Ft. Nelson

JOB DATE January 30, 1973

OWNER, OPERATOR OR HIS AGENT STATES THE WELL IS IN CONDITION FOR THE SERVICE JOB TO BE PERFORMED AND SUBMITS THE FOLLOWING DATA:

PRESSURE DATA			
	TOP	CENTRE	BOTTOM
GAUGE NUMBER	2327		3649
GAUGE DEPTH	8216		8310
BLANKED OFF	YES/NO	YES/NO	YES/NO
HOURLY CLOCK TRAVEL	24		24
INITIAL HYDROSTATIC	3697		3757
FIRST FLOW	INITIAL 84 FINAL 51		INITIAL 161 FINAL 78
FIRST CLOSED IN	840		869
SECOND FLOW	INITIAL 26 FINAL 51		INITIAL 53 FINAL 71
SECOND CLOSED IN	686		710
THIRD FLOW	INITIAL FINAL		
THIRD CLOSED IN			
FINAL HYDROSTATIC	3502		3559

TYPE OF TEST Bottom Hole	TESTER H. Knippel	EMPL. NO. 244
WITNESS D. Snyder	DRILLING CONTRACTOR Bawden 31	

EQUIPMENT AND WELL DATA			
FORMATION TESTED	GAUGE DEPTH 225	OF MEAS. OF EST.	
NET PRODUCTIVE THICKNESS	MUD TYPE Gel		
K B ELEVATION 2034	MUD WEIGHT 8.6	MUD VISC. 52	
ALL DEPTHS MEASURED FROM: <input checked="" type="checkbox"/> KB <input type="checkbox"/> GROUND	CASING OR HOLE SIZE 8 1/2"		
PACKER DEPTHS TOP 8238 BOTTOM	RATHOLE SIZE NA		
DEPTH OF TESTER VALVE 8205	DRILL PIPE 5"	OD WEIGHT 19.5	
CASING PERFORATED INTERVAL NA	DRILL COLLARS ABOVE TESTER 2 7/8"	ID LENGTH 700'	
TOTAL DEPTH 8313	SURFACE CHOKE		
AMOUNT AND TYPE CUSHION Nil	BOTTOM CHOKE 5/8"		

FLUID SAMPLER DATA	
SAMPLER PRESSURE AT SURFACE _____ PSIG	
RECOVERY: C.C. OIL _____ CU.FT. GAS _____	
C.C. WATER _____	
C.C. MUD _____	
TOTAL LIQUID C.C. _____	SAMPLE SHIPPED TO LABORATORY: YES <input type="checkbox"/> NO <input type="checkbox"/>
OIL GRAVITY _____ API @ _____ OF	
GAS/OIL RATIO _____ CU.FT./BBL.	
RESISTIVITY/REFRACTOMETER/SP. GR. READING _____	CHLORIDE CONTENT _____
RECOVERY WATER _____ @ _____ OF _____ PPM	
RECOVERY MUD FILTRATE _____ @ _____ OF _____ PPM	
MUD PIT SAMPLE FILTRATE _____ @ _____ OF _____ PPM	

TIME PERIODS						
	FIRST	SECOND	THIRD		AM	PM
FLOW	5	90		TESTER OPENED	8:57	
CLOSED IN	30	60		PACKER UNSEATED		12:03

LIQUID RECOVERY DATA	
FEET	DESCRIPTION OF LIQUID
MEASURED FROM TESTER VALVE	
	TOTAL LIQUID RECOVERY

GAS FLOW RATE DATA						
FLOW TIME	INSTRUMENT PRESSURE			ORIFICE SIZE	GAS TEMP.	GAS RATE MCFD @ 60°F
	"WATER"	"MERC."	PSI			

REMARKS Strong air blow with gas to surface in two min on preflow. Good air blow with gas to surface in 1/2 min of second flow. Gas blow decreasing after 5 min. Blow too small to measure.

COMPANY AMOCO CANADA PETROLEUM CO LTD.
LEGAL DESCRIPTION 133 07' 52.10
PROVINCE OR TERRITORY YUKON
FIELD OR AREA CRANSWICK
TEST NUMBER 2
TESTED INTERVAL 8238 - 8313
WELL NAME AND NUMBER AMOCO PCP B-1

NOMENCLATURE

AOF	=	absolute open flow potential, MCFD
AOF _t	=	theoretical absolute open flow potential if damage were removed, MCFD
B	=	formation volume factor, res bbl/ST bbl
c	=	compressibility, psi ⁻¹
D	=	gauge depth from KB, ft
DR	=	damage ratio, dimensionless
E	=	KB elevation, ft
F	=	drill pipe capacity, bbl/ft
G	=	hydrostatic gradient of recovery fluid, psi/ft
h	=	net productive thickness of formation, ft
h ^l	=	thickness of test interval, ft
k	=	average effective permeability, md
k ^l	=	estimated average effective permeability, md
m	=	slope of final CIP buildup plot, psig/cycle (psig ² /cycle for gas)
M	=	slope of flow plot, min ⁻¹
P _D	=	average pressure drop across damaged zone during flow, psig
P _f	=	reservoir pressure, psig
P _s	=	wellbore flow pressure, psig
\bar{P}	=	weighted average wellbore flow pressure, psig
PI	=	productivity index, bbl/day-psi
PI _t	=	theoretical productivity index if damage were removed, bbl/day-psi
PS	=	potentiometric surface, fresh water corrected to 100°F, ft
Q	=	average liquid production rate during test, bbl/day
Q _g	=	measured gas production rate, MCFD at 60°F, 14.4 psig, sp. gr. 0.60
Q _m	=	maximum production rate, U.S. gal/min
Q _{mt}	=	maximum theoretical production rate if damage were removed, U.S. gal/min
q	=	flow rate calculated from hydrostatic of recovery, psi/×min
r _i	=	radius of investigation, ft
r _w	=	wellbore or shaft radius, ft
R _s	=	solution gas-oil ratio, MCFD/ST bbl
s	=	fluid saturation, fraction
t	=	effective flow time, min
t _f	=	time interval from start of continuous production to some future point of interest, min
T	=	reservoir temperature, °R
μ	=	viscosity, cp
x	=	time increment during which q values are calculated, min
Z	=	compressibility factor, dimensionless
ϕ	=	porosity, fraction
θ	=	time point during the closed-in period, minutes

Subscripts

g	=	gas
o	=	oil
w	=	water
t	=	total