

-----  
AMOCO PRODUCTION COMPANY  
-----

DATE COMPUTED----->

COMPANY----->

WELL----->

COUNTRY----->

PERMANENT DATUM----->

ELEVATION PERMANENT DATUM--->

DRILLING MEASURED FROM----->

LOGGING DATE----->

RUN NUMBERS----->

DEPTH DRILLER----->

DEPTH LOGGER----->

BTM LOG INTERVAL----->

TOP LOG INTERVAL----->

CASING DRILLER----->

CASING LOGGER----->

CASING WEIGHT----->

BIT SIZE----->

TYPE FLUID IN HOLE----->

DENSITY----->

VISCOSITY----->

PH----->

FLUID LOSS----->

SOURCE OF MUD SAMPLE----->

RESISTIVITY OF MUD----->

TEMPERATURE OF MUD-----<math>(F)</math>->

SOURCE OF FILTRATE SAMPLE--->

RESISTIVITY OF FILTRATE----->

TEMPERATURE OF FILTRATE----->

SOURCE OF MUD CAKE SAMPLE--->

RESISTIVITY OF MUD CAKE----->

TEMPERATURE OF MUD CAKE----->

SURFACE TEMPERATURE----->

TEMPERATURE ON BOTTOM----->

LOGGING COMPANY----->  
LOGGING UNIT NUMBER----->  
LOGGING LOCATION----->  
RECORDED BY----->  
WITNESSED BY----->

----->  
----->  
ZONE TOP----->

FREE WATER RESISTIVITY----->  
    TEMPERATURE----->  
BOUND WATER RESISTIVITY----->  
    TEMPERATURE----->  
DENSITY OF FLUID----->  
TRAVEL TIME OF FLUID----->

MATRIX 1 DENSITY----->  
MATRIX 1 TRAVEL TIME----->  
MATRIX 1 NEUTRON POROSITY--->  
MATRIX 2 DENSITY----->  
MATRIX 2 TRAVEL TIME----->  
MATRIX 2 NEUTRON POROSITY--->

GAMMA RAY?----->  
    SHALE----->  
    CLEAN----->  
SPONTANEOUS POTENTIAL?----->  
    SHALE----->  
    CLEAN----->  
RESISTIVITY?----->  
    SHALE----->  
    CLEAN----->  
NEUTRON?----->

SHALE----->  
CLEAN----->  
DENSITY?----->  
SHALE----->  
CLEAN----->  
TRAVEL TIME?----->  
SHALE----->  
CLEAN----->  
NEUTRON DENSITY XPLOT?----->  
DENSITY SONIC XPLOT?----->  
M-N XPLOT?----->  
METHOD----(MIN,MAX,AVG)----->  
  
ALLOW SWBMAX?----->

ARCHIE A----->  
ARCHIE M----->  
ARCHIE N----->  
DWXP----->

-----  
-----

\0

\A

{IF H67<99999}/RE{DOWN 53}~{GOTO}  
{LEFT}{IF G67<99999}/RE{DOWN 53}~{GOTO}  
{LEFT}{IF F67<99999}/RE{DOWN 53}~{GOTO}  
{LEFT}{IF E67<99999}/RE{DOWN 53}~{GOTO}

\B

/grgtxxE300..E370~aD300.  
ogbfasblcl

\C

{WINDOWSOFF}/WTC/CU201..EB2

\D

/WTC{GETNUMBER "ENTER X NUMBER OF DATA POINTS TO ADD? (ENTER AMOUNT  
{GOTO}I2110~{END}{UP}/C{BIGRIGHT 20}~.{

\E

{WINDOWSOFF}/WTC{GOTO}U6~/C{END}{RIGHT}{END}{RIGHT}{END}{RIGHT}~.{LEFT 12}{END}{DOWN}{RIGHT 12}~{CA

```
\F
{WINDOWSOFF}{GOTO}K1~/RV{RIGHT}~E
{END}{DOWN}{RIGHT 11}~E
/WTC/PPOML10~MR240~S{ESC}\015~QREF1..EU1~R{DOWN}{END}{DOWN}~

\H
/WTC/PPOML0~MR240~S{ESC}\018

\I
/WTC/PPOML0~MR240~S{ESC}\018

\M

\N
{WINDOWSOFF}{END}{LEFT}{END}{LEFT}{END}{LEFT}{END}{LEFT}

\O
{WINDOWSOFF}/WTC{GETLABEL "SORT (A OR D)? ",ORDER}/DS~I6..I8~~{ESC}..{END}{DOWN}
{IF ORDER=

\P
/WTC/PPOML0~MR240~S{ESC}\018

\Q
/WTC/PPOML10~MR240~S{ESC}\018

\R
{IF E25=99999}/C{DOWN}
{RIGHT}{IF F25=99999}/C{DOWN}
{RIGHT}{IF G25=99999}/C{DOWN}
{RIGHT}{IF H25=99999}/C{DOWN}

\S
{IF H25<99999}/RE{DOWN 37}~{GOTO}
{LEFT}{IF G25<99999}/RE{DOWN 37}~{GOTO}
{LEFT}{IF F25<99999}/RE{DOWN 37}~{GOTO}
{LEFT}{IF E25<99999}/RE{DOWN 37}~{GOTO}

\T
/WTC/PPOML10~MR240~S{ESC}\018

\U
/WTC{GETNUMBER "ENTER X NUMBER DATA POINTS TO DELETE? (ENTER AMOUNT
```

Sheet1

{GOTO}12110~{END}{UP}{IF @CELLPOINTER("row")-LINES>5}{DOWN}/C{END}{RIGHT}~.{UP LINES}~{GOTO}1~{D  
{DOWN}DO NOT DELETE THE FIRST ROW OR YOU WI  
REDUCE THE NUMBER OF LINES TO DELETE

\W

/WTC{GOTO}1~{DOWN 5}{RIG

\Z

{IF E67=99999}/C{D  
{RIGHT}{IF F67=99999}/C{D  
{RIGHT}{IF G67=99999}/C{D  
{RIGHT}{IF H25=99999}/C{D

/WTC{GOTO}1~{

a

ADD ANOTHER LOG







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EVALUATION

SPREAD SH

---

\*\*\*\*\*DEPTH INFORMATION\*\*\*\*\*

\*\*\*\*\*MUD INFORMATION\*\*\*\*\*

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PROCESSING PARAMETERS

---

FLUID DATA

ROCK DATA

SHALE DATA

SATURATION DATA

RESULTS SUMMARY

INTERVAL:

TOP:

	POTENTIAL
CUTOFF	PAY
SW<=	0.55
PHI>=	0.06
VSH<=	0.55

	POTENTIAL
PASSED	PAY
CUTOFF	
NET	3
AVG PHI	23%
AVG SW	8%
HC VOL	0.647466458420361
PHI VOL	0.700955521674054

AUTOSTART MENU

REMOVE LAST ZONE DATA

GRAPH OF NEUTRON DENSITY

COMPRESS SPREADSHEET

ADD MORE LEVELS

EXPAND SPREADSHEET

Sheet1

FINAL COMBINED PRINT OF REPORT

PRINT ZONES

PRINT RESULTS SUMMARY

CALLS MASTER MENU

GOTO BEGINNING OF NEXT LINE OF DATA

SORT DATA LEVELS

PRINT HEADER

PRINT LOG DATA

ADD NEW LOGGING RUN

REMOVE LAST LOGGING RUN

PRINT RESULTS

DELETE LAST X LEVELS

ADD NEW ZONE DATA

DELETE  
DELETE X NUMBER OF DATA POINTS  
{BRANCH \U}

GOTO  
GOTO DATA SECTION  
{BRANCH \W}

RUNS  
Add Delete Goto  
{MENUCALL SURVEY}

ZONES  
Add Delete Goto  
{MENUCALL ZONE}

ZONES  
PRINT ALL ZONE PARAMETERS  
{BRANCH \H}

DATA  
PRINT ALL INPUT DATA  
{BRANCH \Q}

DELETE  
DELETE A LOG RUN OR SURVEY (MUD PARAMETERS)  
{BRANCH \S}

GOTO  
/WTC{GOTO}A20~{RIGHT 3}{QUIT}

DELETE  
DELETE A COMPUTATIONAL PARAMETER ZONE  
{BRANCH \A}

GOTO  
CHANGE ZONE PARAMETERS  
/WTC{GOTO}A67~{RIGHT 3}{QUIT}

-2.71  
-2.6245  
-2.539  
-2.4535  
-2.368  
-2.2825  
-2.197  
-2.1115  
-2.026  
-1.9405  
-1.855

-2.65  
-2.5675  
-2.485  
-2.4025  
-2.32  
-2.2375  
-2.155  
-2.0725  
-1.99  
-1.9075  
-1.825

-----  
EET  
-----

01/28/23

OIL COMPANY  
WELL 1  
COUNTRY

MSL  
0.00  
RTKB  
RTKB

1999.00  
01-Feb-87  
4  
3525.00  
3526.00  
3524.00  
1999.00  
1999.00  
1999.00  
9.625/NA  
8.500

SEAWATER/POLY

11.9  
43.0  
9.2  
4.8  
FLOWLINE  
0.280  
74.0  
PRESSED  
0.180  
77.0  
PRESSED  
0.420  
74.0  
80.0  
278.0



WIRELINE  
1  
NEARBY  
ENGR.  
WITNESS

-----

-----

ZONE 1  
2198

CPNDX

0.030  
210.6  
0.030  
210.6  
CALC  
189.0

2.710  
47.6  
0.000  
2.870  
38.0  
0.022

Y  
60.0  
0.0  
N  
0.0  
-50.0  
N  
3.0  
20.0  
N

Sheet1

0.360  
0.150  
N  
2.500  
2.200  
N  
103.0  
50.0  
Y  
N  
Y  
MIN  
N

1  
2  
2  
1

-----  
METERS  
-----

2198

AL  
PAY

0.47  
0.04  
0.5

AL  
PAY

3  
23%  
8%  
0.647466458420361  
0.700955521674054

SORT  
SORT DATA ACCORDING TO DEPTH (ASCENDING OR DESCENDING)  
{BRANCH \O}

SUMMARY  
Goto Results Summary Listing  
/WTC{GOTO}A127~{QUIT}

RESULTS  
PRINT ALL CALCULATED RESULTS  
{BRANCH \T}

-2.36  
0  
0  
0  
0  
0  
0  
0  
0  
0  
0



-----  
PGM BY: W BRYANT,G HEEMINK,T LANGENBUCH

INTERPRETATION BY: INTERPRETER  
-----

25.00

-----

-----

ZONE2

-----

-----

BOTTOM:

POTENTIA  
RESERVOIR

1  
0.06  
0.55

POTENTIA  
RESERVOIR

3  
23%  
NA  
NA  
0.700955521674054



COMPRESS  
COMPRESS SPREADSHEET FOR DISK STORAGE  
{BRANCH \C}

DATA  
Add Delete Goto Sort Compress Expand  
{MENUCALL DATA}

SUMMARY  
PRINT THE RESULTS SUMMARY TABLE  
{BRANCH \I}

Sheet1

0  
0.05  
0.1  
0.15  
0.2  
0.25  
0.3  
0.35  
0.4  
0.45  
0.5  
-0.02  
0.02  
0.06  
0.104  
0.15  
0.2  
0.25  
0.3  
0.355  
0.425  
0.485  
0.01  
0.06  
0.114  
0.169  
0.225  
0.285  
0.345  
0.405  
0.465  
0.528  
0.59  
0.285  
0  
0  
0  
0  
0  
0  
0  
0  
0  
0  
0

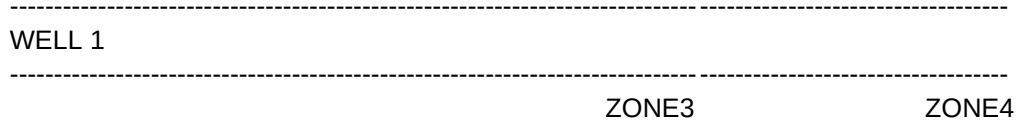






METERS

METERS  
ABOVE PERM. DATUM



-----  
WELL 1  
-----

3526

L |  
R RESERVOIR R |

1  
0.04  
0.5

L |  
R RESERVOIR R |

3  
23%  
NA  
NA  
0.700955521674054

EXPAND  
EXPAND SPREADSHEET  
{BRANCH \E}

PRINT  
Heading Zones Data Results Results-Summary  
{MENUCALL PRINT}

GRAPH  
ND Xyplot  
{BRANCH \B}

COMBO  
COMBINATION DATA AND RESULTS PRESENTATION  
{BRANCH \F}



0  
\*  
\*  
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0  
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0  
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\*  
\*

Sheet1

COMPANY: OIL COMPANY

FROM METERS	TO METERS	DEPTH METERS	NET METERS	GR API	CAL INCHES	SP MV
2198.00	2201.00	2198.00		3.00	5.0	9.00 -30.0

PAGE 2

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ZONE 5

PAGE 3

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EXIT  
Return to Lotus environment  
/WTC{esc}{esc}{QUIT}

Sheet1

WELL: WELL 1

COMPANY: OIL COMPANY

WELL: WELL 1

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RHOB	PHIN	DELT	RT	RXO	TOP	RWA	RMFA	VSH	SXO	SW
GM/CC	LS DEC	US/F	OHMS	OHMS	METERS	OHMS	OHMS			
2.360	0.285	80.0	82.0	11.0	2198.00	5.328	0.715	0.083	0.267	0.076

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Sheet1

PHIE	TOP METERS	RMF OHMS	TRMF F	TSURF F	BHT F	POROMETH	RWF OHMS	TRWF F	RWB OHMS	TRWB F	RHOFL GM/CC
0.234	3526.00	0.180	77.0	80.0	278.0	CPNDX	0.030	210.6	0.030	210.6	1.02

Sheet1

DTFL US/F	RHOMA1 GM/CC	DTMA1 US/F	PHINMA1	RHOMA2 GM/CC	DTMA2 US/F	PHINMA2	GRSH API	GRCL API	SPSH MV	SPCL MV
189.0	2.710	47.6	0.000	2.870	38.0	0.022	60.0	0.0	0.0	-50.0



Sheet1

RSH OHMS	RCL OHMS	PHISH	PHICL	RHOSH GM/CC	RHOCL GM/CC	DTSH US/F	DTCL US/F	VSHMETH	SWBMX (Y/N)	A	M
3.0	20.0	0.360	0.150	2.500	2.200	103.0	50.0 MIN		N	1.00	2.00

Sheet1

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N	DWEXP	FORMGRAD	FORMTEMP F	RWF75 OHMS	NACLRWF KPPM	RWB75 OHMS	NACLRWB KPPM
2.00	1.00	0.056	203.4	0.080	90.5704175165823	0.080	90.5704175165823

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Sheet1

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RMF75 OHMS	NACLRFM KPPM	RWF@TMP OHMS	RWB@TMP OHMS	RMF@TMP OHMS	RWSP OHMS	NACLWSP KPPM	PHID
0.184	33.8920756738672	0.031	0.031	0.072	0.032	85.5295677513609	0.208

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Sheet1

PHIN	PHIS	PHISEMP	PHINMA2	PHICPNDX	PHIND	PHIT	RHOMA GM/CC	DELTMA US/F	M	N
0.285	0.229	0.240	0.245	0.255	0.257	0.255	2.817	42.7	0.816	0.535

Sheet1

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MSHALE	NSHALE	VSH	VSHGR	VSHSP	VSHRES	VSHPHIN	VSHDENS	VSHSON	VSHND
0.583	0.434	0.083	0.083	1.100	1.100	1.100	1.100	1.100	0.601

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Sheet1

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VSHSD	VSHMN	GRI	SPI	RESI	PHINI	DENSI	SONICI	NDI	SDI	MNI	SWBMAX	SWBDWXP
1.100	0.089	1	0	0	0	0	0	1	0	1	0.076	0.083

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Sheet1

											PHI SW VSH
SWB	SWR	SWT	RO OHMS	ROX OHMS	RWA OHMS	RMFA OHMS	F	SXR	SXT	RHOHY GM/CC	P+PI
0.083	0.076	0.076	0.477	0.997	5.328	0.715	15.4	0.301	0.267	1.00	3.00

PAY CALCULATIONS

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P+PSW1	P+PPI	PI	PSWI	PPI	PRI
0.228926350958541	0.700955521674054	3.00	0.228926350958541	0.700955521674054	3.00

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PRPI	RI	RPI
0.700955521674054	3.00	0.700955521674054

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