Schlumberger

COMPANY NORTHWEST NATURAL GAS

WELL IW 22H-22-6S

FIELD MIST GAS STORAGE

COUNTY COLUMBIA STATE OREGON

DUAL INDUCTION / SP
GAMMA RAY / SONIC 2"

IW 22H-22-6S # 68

NORTHWEST NATURAL GAS

MIST GAS STORAGE

COLUMBIA

OREGON

DUAL INDUCTION / SP
GAMMA RAY / SONIC 2"

Schlumberger

The well name, location and provincial reference data were furnished by the customer.

All interpretations are opinions based on inferences 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, cost, 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 as set forth in our current price schedule.

Run No.	ONE
Service Order No.	
Drilling Fluid Level	SEA
Salinity	
Rmf @ BHT	4MB OHMM @ 66.0 DEGF
Rmc @ BHT	6MB OHMM @ 66.0 DEGF
Logging Speed	1800 FT/HR
EQUIPMENT DATA	
Tool Number 1	RWB
Tool Number 2	DPM 4766
Tool Number 3	NSGS 2979
Tool Number 4	DNCHA 1345
Tool Number 5	SNCDA 483
Tool Number 6	TCGR 1289
Tool Number 7	TCM 353
Tool Number 8	
Tool Number 9	
Tool Number 10	
Tool Number 11	
Tool Number 12	

REMARKS:

MAY CENTRALIZERS ON THE INDUCTION AND THE SONIC
TOOL TURNERS RAN ON THE DNL AND THE LDT
FLEX JOINTS RAN ABOVE THE DIT, MCT AND THE DNL
DO NOT TAG TD DUE TO PUSH DOWN JOB

CREW: DAN LEE
TOWED BY: THE
THANKS FOR USING SCHLUMBERGER

ACCUMULATED INTEGRATION VALUES SUMMARY:

Integrated Transit Time:	.185456 S	FROM 1817.50 F	TO 1.50000 F
Integrated Sole Volume:	1987.41 F3	FROM 1817.50 F	TO 1.50000 F
Integrated Cement Volume:	1242.10 F3	FROM 1817.50 F	TO 1.50000 F
(ASSUMING 8.67500 IN	O.D., CASING)		

EVENT MARK SUMMARY:

OUTPUT	INTERVAL BETWEEN PIPS	DEPTH TRACK EDGE
Integrated Transit Time	.00100000 S	RIGHT EDGE
Integrated Sole Volume	10.0000 F3	LEFT EDGE
Integrated Cement Volume	10.0000 F3	RIGHT EDGE

TENS.MV
10000 0.0
SPAV.1
-10.00 90.000
SPSAP1
0.0 150.00

SFLU.OHMM
0.0 50.000
6.0000 CORP2 7.2000 V
ILDCOMP
0.0 50.000 175.00 75.000

CP 44.2 FILE 1 23-NOV-1997 11:40
INPUT FILE(S) CREATION DATE
86 22-OCT-1997

27/100'

TENS
SP
GR
CASING
SFLU
ILD
CILD
DT

2"/100'

CP 44.2 FILE 1 23-NOV-1997 11:35
INPUT FILE(S) CREATION DATE
86 22-OCT-1997

TENS.MV
10000 0.0
SPAV.1
-10.00 90.000
SPSAP1
0.0 150.00

SFLU.OHMM
0.0 50.000
6.0000 CORP2 7.2000 V
ILDCOMP
0.0 50.000 175.00 75.000

SENSOR MEASURE POINT TO TOOL ZERO

DITE 10.3	FEET	SGTL 89.2	FEET
DIT 3.0	FEET	LDTS 94.0	FEET
AMS 98.4	FEET	CWTR 54.0	FEET
DLTT 68.2	FEET		

PARAMETERS

NAME	VALUE	UNIT	NAME	VALUE	UNIT
SNB DISA			VDLR DIM		
TCDA DISA			RATE 15		HZ
SG AUTO			DETE 62		
NMSG 180		US	CBLG 55		US
AMPL 2			CAL 2		
VFM 1			SS FAST		
TDD DISA			SLC UA		
DTF 189.000		US/F	DTM 56.0000		US/F
FD 2.65000			DTFS 8.0		
SP NORM			DTD 0.0		F
WMUD 10.0000		LB/G	TD 32768.0		F
FSD 8.67500		IN	DRC BS		
BFM LIQU			MDEN 2.65000		G/C3
FD 1.00000		G/C3	DFPH SIAN		
MATR SAND			HC CALI		
WTSC 0			HSCO YES		
SOCO NO			MCCO NO		
SSCO NO			SCCO NO		
MSCO NO			FICO NO		
CCCO NO			SBAT BOUN		
MCOR NAIV			BOUN 1.500000		LE
FSAL -50000.0		PPM	ANGL 0.0		DEG
GAAC .010000		DF/F	BHTL NAIV		
IFRS 2		KHZ	SRB 1.00000		OHMM
MMF2 39.0062		MMHO	DRE2 12.492		OHMM
RMF2 17.0957		MOHM	DRE2 11.5626		OHMM
RMC2 .058585		OHMM	DRE2 1.00000		DEG
MEF2 1.05831			DCF2 1.00333		
DESP DISA			SFLE ALSO		
DCAS -50000.0		F	ITEN ALSO		
DEVI 80.0000		DEG	DESS BHR		
IPRO STAN			IPSA NORM		
DWOO 512			DSIN 1		US
DWSI 256		US	DSOU SHOR		
CWLS DPH1			SUT 53.0000		DEGF
GTEM TEMP			DTCS 0.0		F
BHT 66.0000		DEGF	DTCI 0.0		F
SPAS DISA			DFD 10.0000		LB/G
RWFS 1.4000		OHMM	MFST 66.0000		DEGF
BS 12.2500		IN	BHS OPEN		

COMPANY	NORTHWEST NATURAL GAS
WELL	IW 22H-22-6S
FIELD	MIST GAS STORAGE
COUNTY	COLUMBIA STATE OREGON

SCHL FR	1812.5 F
SCHL TO	1825.5 F
DRLR TO	1825.5 F
Elev. KB	1843.5 F
DF	
GL	1825.5 F