WELL ANALYSIS CORPORATION

WATER INJECTION SURVEY

FILING NO.

COMPANY: E & B NATURAL RES MGMT. CORP.
WELL: WNF I-23
FIELD: WILMINGTON
LOCATION: LOS ANGELES
COUNTY: STATE: CALIFORNIA
DISTRICT I OTHER SVC.

SEC. 19 TWP. 4S RNG. 11W

PERMANENT DATUM: GROUND LEVEL ELEV.:

LOG MEASURED FROM KB 22' ABOVE PERM DATUM

DRILLING MEASURED FROM KB

ELEVATIONS: KB Ft. DF Ft. GL Ft.

API NUMBER: 04021947	
DATE LOGGED	10-Jun-85
RUN NUMBER	ONE
DEPTH LOGGER	5500'
EFFECTIVE DEPTH	5500'
PICK-UP DEPTH	5431'
BOT LOGGED INT	5431'
TOP LOGGED INT	SURFACE
TYPE OF FLUID	WATER
FLUID IN HOLE	WATER
FLUID IN WELL	WATER
FLUID LEVEL	SURFACE
WELL STATUS	INJECT
MAX TEMPERATURE	122.9 F.
TEMPERATURE SENS	1° F/DIV
GRADIENT SENS	2° F/DIV
LOGGING SPEED	VARIOUS
RECORDED BY	(JOHN MAGG)
WITNESSED BY	(E. MORLAN)
ENGINEER	
DEPTH CORRELATION	D. HOLTS
PACKER	

FLOWING INJECTION SHUT-IN

TUBING PSI	1600	
CASING PSI	0	
INJECTION RATE	133 BPD	
OBSERVED RATE	129 BPD	
GAS SOURCE	GAS CAP	
HALF LIFE	8.08 DAYS	

PRODUCTION DATA

OIL =
GAS =
WATER =
BHP =

Equipment Data

R/A Ejector	1.375"
Collar Locator	1.375"
Temperature Tool	1.375"
Gamma Detector	1.375"

TOOL DIAGRAM

R/A EJECTOR AT 5.0'
COLLAR LOCATOR AT 7.0'
TEMPERATURE TOOL AT 9.5'
GAMMA DETECTOR AT 13.0'

Remarks/Survey Results

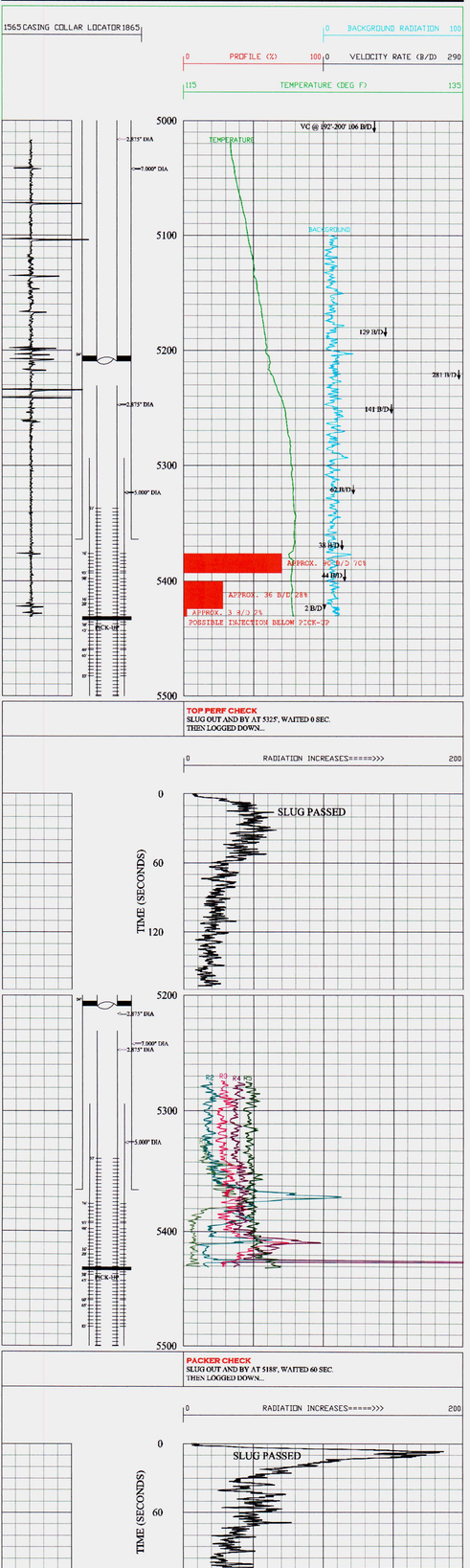
SURVEY INDICATES NO MIGRATION AROUND TOP PERF OR AT TIE PACKER.
SAND/AC MARKERS: NONE AVAILABLE
11:00 AM - ON LOCATION
11:10 AM - RAN IN HOLE
11:20 AM - BEGIN SURVEY
12:55 PM - PULLED OUT OF HOLE
1:20 PM - OFF LOCATION
WATER INJECTION SURVEY - PROFILE A:
5216'-5393'. APPROX. 90 B/D 70%
5400'-5424'. APPROX. 36 B/D 28%
5424'-5431'. APPROX. 3 B/D 2%
POSSIBLE INJECTION BELOW PICK-UP

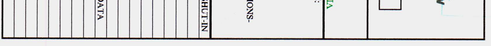
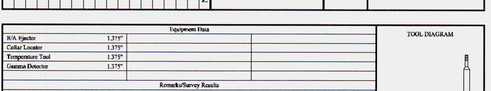
CASING AND TUBING RECORD

SIZE	WT(#)	FROM	TO	SIZE	WT(#)	FROM	TO
7"	23	SURFACE	5564'				
5"	18	5294'	5550'				
2.875"	6.5	SURFACE	5209.54'				
2.875"	6.5	5231'	5506'				

PERFORATIONS

STR.	PIPE DIA.	
A	5"	5376'-5393', 5398'-5416', 5420'-5438', 5443'-5460', 5465'-5483'.
	2.875"	5337'-5506'.
		PACKER: 5204.99'-5209.54'.



TOP PERF CHECK
SLUG OUT AND BY AT 5325', WAITED 0 SEC.
THEN LOGGED DOWN...

PACKER CHECK
SLUG OUT AND BY AT 5188', WAITED 60 SEC.
THEN LOGGED DOWN...