

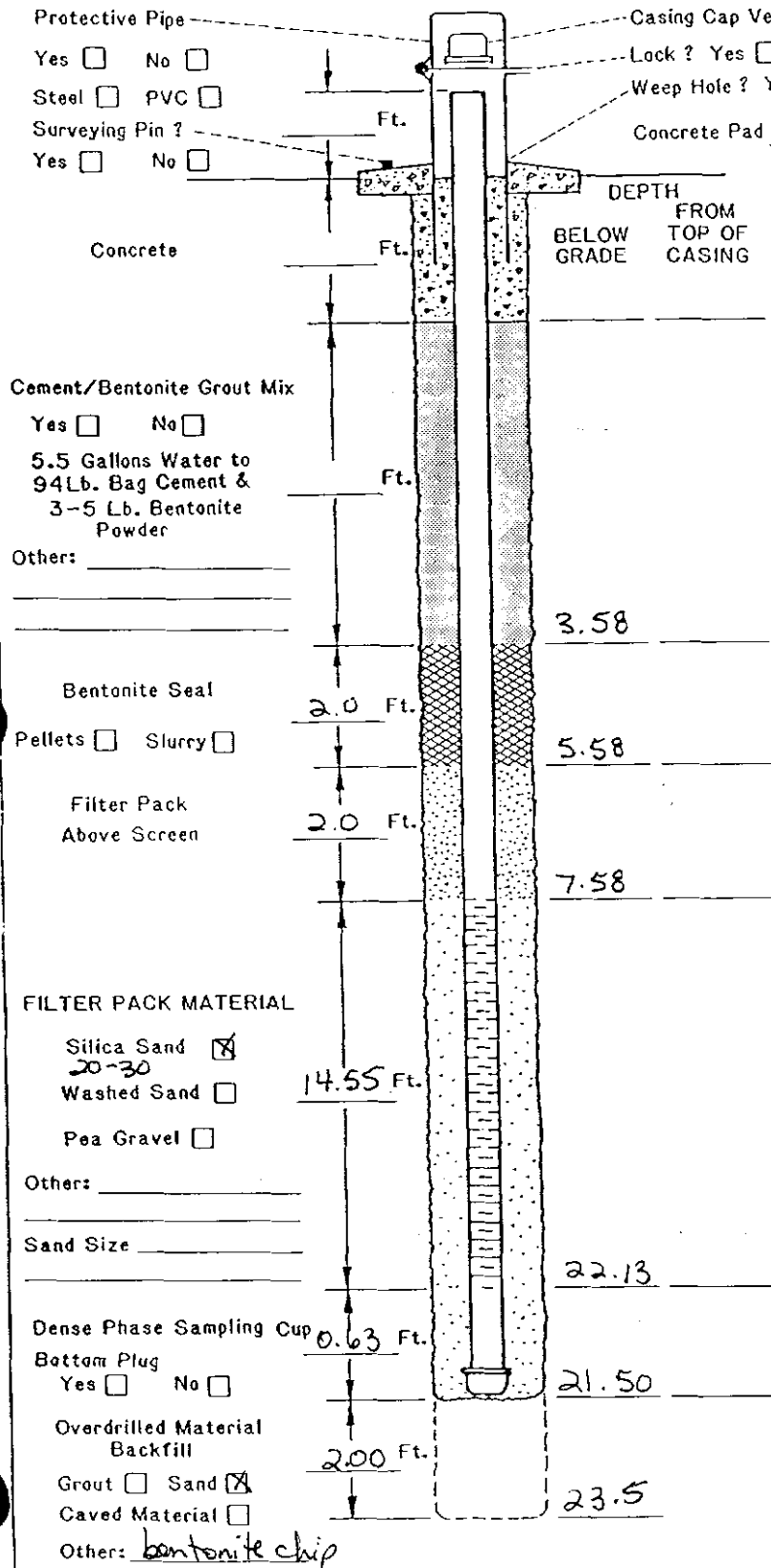
SOIL BORING LOG KM-5655-B

mw-9

KERR-MCGEE CORPORATION Hydrology Dept. - S&EA Division		KM SUBSIDIARY Cimarron Corp.		LOCATION Burial Area #1		BORING NUMBER 900N-1235E			
DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE			REMARKS OR FIELD OBSERVATIONS
						NO.	TYPE	DEPTH	
1030	brn sdy silt bcong silty sd rd brn @ 2.5-3'		Sm					3	
5	Yell rd silty sd becoming yell brn silty sd							5	
10	Silty clay yellow red stiff crumbly non-plastic wet sdy silt soft sli dilat. becoming clayey		SC					10	4.4
	Clayey sand yell rd firm sli plastic		SC						4.6
15	Silt Silty clay yell red - rd brn stiff blk stroke							15	
	13-15 rd clay sdy lams plastic								
	18.3-18.5 silty gravel rd yell		ML						4.8
20	rd brn silty clay wet blk soft silty shale red							20	
	rd sdy shale							23.5	3.5 chips 22-23.5
1100	TD 23.5								

EXPLANATION	Water Table (24 Hour)	GRAPHIC LOG LEGEND		DATE DRILLED 8-30-99	PAGE 1 of 1
	Water Table (Time of Boring)	CLAY	DEBRIS FILL	DRILLING METHOD	
	PID NO. Identifies Sample by Number TYPE Sample Collection Method	SILT	HIGHLY ORGANIC (PEAT)	DRILLED BY Horizon	
	SPLIT-BARREL	SAND	SANDY CLAY	LOGGED BY J Crawford	
THIN-WALLED TUBE	GRAVEL	CLAYEY SAND	EXISTING GRADE ELEVATION (FT. AMSL)		
AUGER	SILTY CLAY	shale	LOCATION OR GRID COORDINATES 900N-1235E		
CONTINUOUS SAMPLER	CLAYEY SILT	NO RECOVERY			
ROCK CORE					
DEPTH Depth Top and Bottom of Sample					
REC. Actual Length of Recovered Sample in Feet					

**KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM**



Casing Cap Vent? Yes No

Lock? Yes No

Weep Hole? Yes No

Concrete Pad _____ Ft. x _____ Ft. x _____ Inches

DRILLING INFORMATION:

1. Borehole Diameter = 5" Inches.
2. Were Drilling Additives Used? Yes No
Revert Bentonite Water
Solid Auger Hollow Stem Auger
3. Was Outer Steel Casing Used? Yes No
Depth = _____ to _____ Feet.
4. Borehole Diameter for Outer Casing N/A Inches.

WELL CONSTRUCTION INFORMATION:

1. Type of Casing: PVC Galvanized Teflon
Stainless Other _____
2. Type of Casing Joints: Screw-Couple Glue-Couple Other _____
3. Type of Well Screen: PVC Galvanized
Stainless Teflon Other _____
4. Diameter of Casing and Well Screen:
Casing 2" Inches, Screen 2" Inches.
5. Slot Size of Screen: 20
6. Type of Screen Perforation: Factory Slotted
Hacksaw Drilled Other _____
7. Installed Protector Pipe w/Lock: Yes No

WELL DEVELOPMENT INFORMATION:

1. How was Well Developed? Bailing Pumping
Air Surging (Air or Nitrogen) Other _____
2. Time Spent on Well Development?
3hr Minutes/Hours
3. Approximate Water Volume Removed? 150 Gallons
4. Water Clarity Before Development? Clear
Turbid Opaque
5. Water Clarity After Development? Clear
Turbid Opaque
6. Did Water have Odor? Yes No
If Yes, Describe _____
7. Did Water have any Color? Yes No
If Yes, Describe _____

WATER LEVEL INFORMATION:

Water Level Summary (From Top of Casing)
During Drilling _____ Ft. Date _____
Before Development _____ Ft. Date _____
After Development _____ Ft. Date _____

Protective Pipe
Yes No
Steel PVC
Surveying Pin?
Yes No

Cement/Bentonite Grout Mix
Yes No
5.5 Gallons Water to
94Lb. Bag Cement &
3-5 Lb. Bentonite
Powder
Other: _____

Bentonite Seal
Pellets Slurry
Filter Pack
Above Screen

FILTER PACK MATERIAL
Silica Sand
20-30
Washed Sand
Pea Gravel
Other: _____

Sand Size _____

Dense Phase Sampling Cup
Bottom Plug
Yes No

Overdrilled Material
Backfill

Grout Sand
Caved Material

Other: bentonite chip

Driller/Firm Horizon

Drill Rig Type BK 81

Date Installed 8/30/99

Drill Crew Richard Rehmer

Well No. MW 9

Kerr-McGee Hydrologist J. Crawford