Soil Borings

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCLLC	LOCATION HENDERSON, NV.	BORING NUMBER PC-2

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	SAND / SILTY SAND W/ ABD GRAVEL; LT. TAN-BROWN; WELL-GRADED; DRY									
5	GRAVEL @ 6-7'									
			SM-GM							
10	SAND AS ABOVE									
	GRAVEL @ 14-15'									
15										
18'	— — — — — —		▽							
	SAND AS ABOVE; SATURATED									
20										
25										GROUNDWATER SAMPLE TAKEN @ 30'
30										
31				3 12 27		1	X	30 31.5	1.4'	
	SILTY CLAY; REDDISH-BROWN GRADING INTO LT. GRAY-GREEN MUDDY CREEK		CL							
35										
	TD 35'									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	PAGE
3/23/98	1 of 1
DRILLING METHOD: HSA	
DRILLED BY: WEBER DRILLING	
LOGGED BY: T. REED	
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCLLC	LOCATION HENDERSON, NV	BORING NUMBER PC-3

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	FILL: SAND/GRAVEL IN IMPOUNDMENT BERM									
5	SAND; SILTY SAND W/ COMMON TO ABD. GRAVEL; LT. TAN-BROWN; WELL-GRADED; DRY									
10	GRAVEL ZONE @ 8-9'		SM-GM							
15	SAND AS ABOVE; BECOMING MOIST									
20										
23			▽							
25	SAND AS ABOVE; SATURATED									GROUNDWATER SAMPLE COLLECTED @ ~28'
30										
30.5	SILTY CLAY; RED-BROWN TO LT. GRAY-GREEN MUDDY CREEK		CL	7/12/22		1	X	31 32.5	1.3'	
	TD 31'									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	3/23/98
PAGE	1 of 1
DRILLING METHOD	HSA
DRILLED BY	WEBEL DRILLING
LOGGED BY	T. REED
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KmLLC	LOCATION HENDERSON, NV.	BORING NUMBER PC-5

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
2	FILL: SAND/GRAVEL IN IMPOUNDMENT BERM									
5	SAND, SILTY SAND; GRAVEL COMMON; WELL-GRADED; LT. TAN-BROWN		SM-GM							
	GRAVEL ZONE @ 8-10'									
10	SAND AS ABOVE; MOIST									
	GRAVEL @ 13'									
15	GRAVEL @ 15.5-16.5'									
18	▽									
20										GROUNDWATER SAMPLE COLLECTED @ 25'
25										
26										
27	SILTY CLAY; BROWN TO REDDISH-BROWN SANDY CLAY; V. SLI. PLASTIC MUDDY CREEK		CL	37 50		1	X	27' 28.5'	1.5'	
	TD. 27'									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL; AUGER; ROCK CORE; THIN-WALLED TUBE; CONTINUOUS SAMPLER; NO RECOVERY

- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY; SILT; SAND; GRAVEL; SILTY CLAY; CLAYEY SILT; DEBRIS FILL; HIGHLY ORGANIC (PEAT); SANDY CLAY; CLAYEY SAND; _____; _____

DATE DRILLED	PAGE
3/25/98	1 of 1
DRILLING METHOD: HSA	
DRILLED BY: WEBER DRILLING	
LOGGED BY: T. REED	
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCLLC	LOCATION HENDERSON, NV	BORING NUMBER PC-6

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	FILL: SAND AND GRAVEL IN IMPOUNDMENT BERM									
5	SAND; SILTY SAND; GRAVEL COMMON TO ABD; WELL-GRADED LT. TAN-BROWN; SLI. MOIST									
10	GRAVEL @ 10-12'		SM-GM							
15	SAND AS ABOVE									
20	GRAVEL @ 22-23'									
23	▽									
25	SAND AS ABOVE; SATURATED									
30	GRAVEL @ 33-34'		SM-GM							
35	GRAVEL @ 36-37'									
40										GROUNDWATER SAMPLE TAKEN @ 40'

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL; AUGER; ROCK CORE; THIN-WALLED TUBE; CONTINUOUS SAMPLER; NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY; SILT; SAND; GRAVEL; SILTY CLAY; CLAYEY SILT; DEBRIS FILL; HIGHLY ORGANIC (PEAT); SANDY CLAY; CLAYEY SAND; _____; _____

DATE DRILLED	PAGE
3/24/98	1 of 2
DRILLING METHOD: HSA	
DRILLED BY: WEBER DRILLING	
LOGGED BY: T. REED	
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCLLC	LOCATION HENDERSON, NV	BORING NUMBER PC-6 (CONT.)

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
40	SAND AS ABOVE		SM-GM							
41	SILTY CLAY; LT. GRAY-GREEN; SLI. PLASTIC MUDDY CREEK		CL							
43	TD 43'			7/18/39		1	X	43 44.5	1.3'	

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED: 3/24/98

PAGE: 2 of 2

DRILLING METHOD: HSA

DRILLED BY: WEBER DRILLING

LOGGED BY: T. REED

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCLLC	LOCATION HENDERSON, NV	BORING NUMBER PC-7

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	FILL; SAND / GRAVEL IN IMPOUNDMENT BERM									
5	SILTY SAND / SAND; GRAVEL COMMON TO ABD; WELL-GRADED; LT. TAN-BROWN									
10	GRAVEL ZONE 6-8.5'									
15			SM-GM							
20										
21			▽							
25	SAND AS ABOVE; SATURATED									
30										
35			SM-GM							
40	SAND AS ABOVE									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL | AUGER | ROCK CORE | THIN-WALLED TUBE | CONTINUOUS SAMPLER | NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY | SILT | SAND | GRAVEL | SILTY CLAY | CLAYEY SILT | DEBRIS FILL | HIGHLY ORGANIC (PEAT) | SANDY CLAY | CLAYEY SAND | ____ | ____

DATE DRILLED	PAGE
3/25/98	1 of 2
DRILLING METHOD: HSA	
DRILLED BY: WEBER DRILLING	
LOGGED BY: T. REED	
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMLLLC	LOCATION HENDERSON, NV	BORING NUMBER PC-7 (CONT.)

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
40	SAND AS ABOVE		SM-GM							NOTE: DRILLER'S PICK ON MUDDY CREEK TOP; BLOWING SAND INTO AUGERS PREVENTED SPLIT SPOON SAMPLING
42	AUGER CUTTINGS: SILTY CLAY; LT.-MED. RED-BROWN; SLI. TO MOD. PLASTIC; OCC. LT. GRAY-GREEN STREAKS		CL							
45	TD 45'									DRILLERS USED FRESH WATER TO ATTEMPT TO WASH OUT AUGERS FOR SPLIT SPOON SAMPLING; DID NOT COLLECT GROUNDWATER SAMPLE

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL · AUGER · ROCK CORE · THIN-WALLED TUBE · CONTINUOUS SAMPLER · NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY · SILT · SAND · GRAVEL · SILTY CLAY · CLAYEY SILT · DEBRIS FILL · HIGHLY ORGANIC (PEAT) · SANDY CLAY · CLAYEY SAND

DATE DRILLED	PAGE
3/25/98	2 of 2

DRILLING METHOD: HSA
DRILLED BY: WEBER DRILLING
LOGGED BY: T. REED
EXISTING GRADE ELEVATION (FT. AMSL):
LOCATION OR GRID COORDINATES:

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCLLC	LOCATION HENDERSON, NV	BORING NUMBER PC-8

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	SAND; SILTY SAND; GRAVEL COMMON; WELL-GRADED; LT. TAN-BROWN									
5	GRAVEL ZONE @ 7-8'									
10	SAND AS ABOVE		SM-GM							
15	GRAVEL ZONE @ 13'; COLOR CHANGE TO LT. BROWN; MOIST									
17	▽									
20										
25			SM-GM							GROUNDWATER SAMPLE COLLECTED @ 28'
30										
35										
36	SILTY CLAY; REDDISH-BROWN; GRADING		CL							
37	TO LT. GRAY-GREEN; VI. SLI. PLASTIC MUDDY CREEK			7 10 48		1	X	37 30.5	1.2'	
	TD 37'									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL; AUGER; ROCK CORE; THIN-WALLED TUBE; CONTINUOUS SAMPLER; NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY; SILT; SAND; GRAVEL; SILTY CLAY; CLAYEY SILT; DEBRIS FILL; HIGHLY ORGANIC (PEAT); SANDY CLAY; CLAYEY SAND; _____; _____

DATE DRILLED	PAGE
3/26/98	1 of 1

DRILLING METHOD: HSA

DRILLED BY: WEBER DRILLING

LOGGED BY: T. REED

EXISTING GRADE ELEVATION (FT. AMSL):

LOCATION OR GRID COORDINATES:

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC-LLC	LOCATION HENDERSON, NV	BORING NUMBER PC-9

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	SAND/SILTY SAND BROWN - LT TAN BROWN GRAVELLY WELL GRADED DRY		SM/ GM				X			DRILLING W/ MOBILE B-61 HDX 8" AUGERS
5										
10	SAND/SILTY GRAVELLY SD BCMG BRN OCCASIONAL COBBLES									
15			GM							
20			▽							
24										24' T/MUDDY CREEK
25	SILTY CLAY REDDISH BROWN SLI-NON PLASTIC		CL	4,11,17			X			TD 25' GROUNDWATER SAMPLE COLLECTED AT 25'
30										
35										

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
  - SPLIT-BARREL
  - AUGER
  - ROCK CORE
  - THIN-WALLED TUBE
  - CONTINUOUS SAMPLER
  - NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	3/30/98
PAGE	1 of 1
DRILLING METHOD	HSA
DRILLED BY	WEBER
LOGGED BY	J. CRAWFORD
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC-LLC	LOCATION HENDERSON NV	BORING NUMBER PC-11

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	SAND / SANDY SILT TANISH BRN DRY GRAVELLY		SM							
5	DECREASE SILT									
10										
15	INC GRAVEL		GM							
20	SAND / GRAVELLY SAND BROWN MOIST TR CLAY									GROUNDWATER SAMPLE COLLECTED AT 30'
25	INC CLAY BRN-DK BRN MOIST to WET SLI COHESIVE									
30	SAND W/ CLAY WET BROWN		GM							NO SPLIT SPOON VERIFICATION OF MUDDY CREEK. NOTED MC ON AUGER FLIGHT
35										V. HARD DRLG 36-37½
37.5	GRAVELLY SAND WELL GRD V. HARD	CALICHE								37.5' T/ MUDDY CREEK
	SILTY CLAY GREENISH GRAY SLI PLASTIC		CL							TD 38'

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL · AUGER · ROCK CORE · THIN-WALLED TUBE · CONTINUOUS SAMPLER · NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY · SILT · SAND · GRAVEL · SILTY CLAY · CLAYEY SILT · DEBRIS FILL · HIGHLY ORGANIC (PEAT) · SANDY CLAY · CLAYEY SAND

DATE DRILLED	PAGE
3/30/98	1 of 1

DRILLING METHOD: HSA
DRILLED BY: WEBER
LOGGED BY: J CRAWFORD
EXISTING GRADE ELEVATION (FT. AMSL):
LOCATION OR GRID COORDINATES:

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC-LLC	LOCATION HENDERSON NV	BORING NUMBER PC-13

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	SILTY SAND LT BRN GRAVELLY DRY		SM							
5	SAND SILTY ORANGISH BRN WELL GRADED		SM/GM							
10										
15	SILTY SAND BRN-DK BRN DRY-SLI MOIST FINE-MED GR. GRAVELS THRU OUT									
20	INC GRAVEL		GM							GROUNDWATER SAMPLE COLLECTED AT 18' AFTER PULLING AUGERS
25										27.5' T/MUDDY CREEK
	SILTY CLAY GREENISH GRAY SLI SDY		CL							TD 29'
30										DID NOT USE SPLIT SPOON DUE TO FILL IN AUGER
35										

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL; AUGER; ROCK CORE; THIN-WALLED TUBE; CONTINUOUS SAMPLER; NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY; SILT; SAND; GRAVEL; SILTY CLAY; CLAYEY SILT; DEBRIS FILL; HIGHLY ORGANIC (PEAT); SANDY CLAY; CLAYEY SAND; _____; _____

DATE DRILLED	3/31/98
PAGE	1 of 1
DRILLING METHOD	HSA
DRILLED BY	WEBER
LOGGED BY	J. CRAWFORD
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC-LLC	LOCATION HENDERSON NV	BORING NUMBER PC-14

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	SILTY SAND RD BRN LOOSE DRY WELL GRADED GRAVELS		SM							
5										
10	Cobbles at 10.5		GM							
	SILTY GRAVEL RD BRN		SM							
15										
	▽									
20	BCMG MOIST SLI CLAYEY DK BRN									POOR RETURNS BELOW ▽
25										
27	SILTY CLAY GREENISH GRAY SLI-NON PLASTIC		CL							T/MUDDY CREEK 27'
30										TD 28' GROUNDWATER SAMPLE COLLECTED AT 18'

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL; AUGER; ROCK CORE; THIN-WALLED TUBE; CONTINUOUS SAMPLER; NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY; SILT; SAND; GRAVEL; SILTY CLAY; CLAYEY SILT; DEBRIS FILL; HIGHLY ORGANIC (PEAT); SANDY CLAY; CLAYEY SAND; _____; _____

DATE DRILLED	PAGE
3/31/98	1 of 1
DRILLING METHOD: HSA	
DRILLED BY: WEBER	
LOGGED BY: J. CRAWFORD	
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMLC LLC	LOCATION HENDERSON NV	BORING NUMBER PC-15

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	SILTY SAND REDDISH BROWN WELL GRADED W/ GRAVEL		SM							
5	INCREASE GRAVEL		GM							
10										
15	SAND/GRAVEL SILTY BECOMING CLAYEY DARK BROWN									
20	INC CLAY		▽							GROUNDWATER SAMPLE COLLECTED AT 20'
25			GM							POOR RETURNS BELOW ▽
30										
35										T/ MUDDY CREEK 37'
40	SILTY CLAY GRAYISH WHITE		CL							TD 38'

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	PAGE
3/31/98	1 of 1
DRILLING METHOD: HSA	
DRILLED BY: WEBER	
LOGGED BY: J. CRAWFORD	
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC - LLC	LOCATION HENDERSON NV	BORING NUMBER PC-16

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	SILTY SAND TO BRN		SM							
5	GRAVELS WELL GRADED									
10										
15			GM							
	INC GRAVELS									
	SAND/GRAVEL DK BRN		▽							GROUNDWATER SAMPLE COLLECTED AT 20'
20	MOIST SLI CLAYEY									
	INC CLAY CONTENT									
25										V. POOR RETURNS BLOW 25'
30	SAND/GRAVEL									
35										

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL · AUGER · ROCK CORE · THIN-WALLED TUBE · CONTINUOUS SAMPLER · NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY · SILT · SAND · GRAVEL · SILTY CLAY · CLAYEY SILT · DEBRIS FILL · HIGHLY ORGANIC (PEAT) · SANDY CLAY · CLAYEY SAND

DATE DRILLED	PAGE
4/1/98	1 of 2
DRILLING METHOD: HSA	
DRILLED BY: WEBER	
LOGGED BY: J. CRAWFORD	
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC-LLC	LOCATION HENDERSON NV	BORING NUMBER PC-14

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
45										T/MUDDY CREEK 47'
	SILTY CLAY GREENISH GRAY SOFT TO FIRM SLI PLASTIC		CL							
50										TD 48'

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED: 2/1/98

PAGE: 2 of 2

DRILLING METHOD: HSA

DRILLED BY: WEBER

LOGGED BY: J. CRAWFORD

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC - LLC	LOCATION HENDERSON NV	BORING NUMBER PC-20

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	SILTY SAND REDISH BRN W/ GRAVELS DRY		SW							
5										
10	SAND/GRAVEL BRN - RD BRN		GM							
15	SAND RD BRN M-CRS GR. LOOSE DRY TO SLI MOIST 1/4" GRAVEL SILTY									
20	SAND BRN - GY BRN CRS GR BCMG SLI CLAYEY	▽								20' POOR RETURNS
25	COBBLES?									24' DRILLED HARD
30	SAND & GRAVELS AAB		GM							GROUNDWATER SAMPLE COLLECTED AT 27'
35										

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL | AUGER | ROCK CORE | THIN-WALLED TUBE | CONTINUOUS SAMPLER | NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY | SILT | SAND | GRAVEL | SILTY CLAY | CLAYEY SILT | DEBRIS FILL | HIGHLY ORGANIC (PEAT) | SANDY CLAY | CLAYEY SAND | _____ | _____

DATE DRILLED: 4/6/98 | PAGE: 1 of 2

DRILLING METHOD: HSA

DRILLED BY: WEBER

LOGGED BY: J. CRAWFORD

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMLC-LLC	LOCATION HENDERSON NV	BORING NUMBER PC-20

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
	SILTY CLAY GRAISH GRN TO OLIVE SOFT WET MED PLASTIC		CL							T/Muddy Creek 41'
45	SILTY CLAY V. LITE GRAY FIRM TO HARD LAMINATED DRY									TD 43'
50										

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED: 4/6/98

PAGE: 2 of 2

DRILLING METHOD: HSA

DRILLED BY: WEBER

LOGGED BY: J. CRAWFORD

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCLLC	LOCATION HENDERSON, NV	BORING NUMBER PC-22

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
1	ASPHALT / ROAD GRAVEL									
	SAND; SILTY SAND; GRAVEL COMMON; SLI. MOIST; LT. TAN-BROWN; WELL-GRADED									
5	GRAVEL ZONE @ 6'									
10			SM-GM							
	SAND AS ABOVE									
15										
20	SAND AS ABOVE; SATURATED		▽							BORING DRY: COULD NOT OBTAIN ENOUGH WATER FOR SAMPLE
25	CALICHE @ 25-26.5'									
27	SILTY CLAY; REDDISH-TAN; SLI. PLASTIC MUDDY CREEK		CL			1	X	27 28.5	1.2'	
28.5	TD 28.5'									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED: 4/14/98

PAGE: 1 of 1

DRILLING METHOD: HSA

DRILLED BY: WEBER DRLG.

LOGGED BY: T. REED

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMLLC	LOCATION HENDERSON, NV	BORING NUMBER PC-23

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
1	ASPHALT / ROAD GRAVEL									
	SAND; SILTY SAND; GRAVEL COMMON; WELL-GRADED; SLI. MOIST LT. REDDISH-BROWN TO TAN-BROWN									
5	GRAVEL ZONE @ 4-5'		SM-GM							
10										
	GRAVEL ZONE @ 13-14'									
15	GRAVEL @ 16-17'									
20										
22	▽									WATER SAMPLE COLLECTED @ 26'
25										
29										
30	SILTY/SANDY CLAY; REDDISH-TAN; SLI. PLASTIC; MUDDY CREEK		CL			1	X	30 31.5	1.4'	
	TD 30'									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	4/14/98
PAGE	1 of 1
DRILLING METHOD	HSA
DRILLED BY	WEBER DRLG.
LOGGED BY	T. REED
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KM LLLC	LOCATION HENDERSON, NV	BORING NUMBER PC-25

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
1	ASPHALT & ROAD GRAVEL									
	SAND; SILTY SAND; LT. REDDISH-BROWN; GRAVEL COMMON; WELL-GRADED; SLI. MOIST		SM							
5										
10	SAND AS ABOVE									
15										
	— — —

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCLLC	LOCATION HENDERSON, NV	BORING NUMBER PC-26

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	SAND; SILTY SAND; LT. TAN-BROWN; GRAVEL COMMON; SL! MOIST; WELL-GRADED									
5										
10	GRAVEL ZONE @ 10.5-12		SM-GM							
15	GRAVEL ZONE @ 16-17'									
18	▽									
20	SAND AS ABOVE; SATURATED									GROUNDWATER SAMPLE COLLECTED @ 28'
25										
30						1	X	29 30.5	.8'	
	SILTY CLAY; LT. TAN TO REDDISH-BROWN; MOD. PLASTIC; MUDDY CREEK		CL							
35	TD 35'									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL; AUGER; ROCK CORE; THIN-WALLED TUBE; CONTINUOUS SAMPLER; NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY; SILT; SAND; GRAVEL; SILTY CLAY; CLAYEY SILT; DEBRIS FILL; HIGHLY ORGANIC (PEAT); SANDY CLAY; CLAYEY SAND; _____; _____

DATE DRILLED	PAGE
4/15/98	1 of 1

DRILLING METHOD: HSA

DRILLED BY: WEBER DRLG.

LOGGED BY: T. REED

EXISTING GRADE ELEVATION (FT. AMSL):

LOCATION OR GRID COORDINATES:

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCLLC	LOCATION HENDERSON, NV	BORING NUMBER PC-27

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
1	ASPHALT / ROAD GRAVEL									
	SAND / SILTY SAND: TAN-BROWN GRAVEL COMMON; WELL-GRADED; SLI. MOIST									
5										
			SM-GM							
10	GRAVEL ZONE @ 10-11'									
15										
		▽								
	SAND AS ABOVE, SATURATED									
20			SM-GM							
25										
28	SILTY CLAY, LT. REDDISH-BROWN; SLI. PLASTIC MUDDY CREEK		CL							
30	TD 30'					1	X	30'-31.5'	1.5'	

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL; AUGER; ROCK CORE; THIN-WALLED TUBE; CONTINUOUS SAMPLER; NO RECOVERY

- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY; SILT; SAND; GRAVEL; SILTY CLAY; CLAYEY SILT; DEBRIS FILL; HIGHLY ORGANIC (PEAT); SANDY CLAY; CLAYEY SAND

DATE DRILLED	PAGE
4/16/98	1 of 1
DRILLING METHOD: HSA	
DRILLED BY: WEBER DRLG.	
LOGGED BY: T. REED	
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCLLC	LOCATION HENDERSON, NV	BORING NUMBER PC-29

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
1	ASPHALT / ROAD GRAVEL	26"								
	SAND / SILTY SAND; GRAVEL COMMON; WELL-GRADED; TAN-BROWN; SLI. MOIST		SM-GM							
20	SAND AS ABOVE; MOIST TO SATURATED					1	X	20' 21.5'	1.5'	
25			SM-GM							GROUNDWATER SAMPLE COLLECTED @ 30'
34										
35	SILTY-SANDY CLAY; LT. TAN; MOD PLASTIC MUDDY CREEK		CL			2	X	34.5' 36'	1.2'	
	TD 35'									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL; AUGER; ROCK CORE; THIN-WALLED TUBE; CONTINUOUS SAMPLER; NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY; SILT; SAND; GRAVEL; SILTY CLAY; CLAYEY SILT; DEBRIS FILL; HIGHLY ORGANIC (PEAT); SANDY CLAY; CLAYEY SAND; _____; _____

DATE DRILLED	PAGE
4/16/98	1 of 1

DRILLING METHOD: HSA

DRILLED BY: WEBER DRLG.

LOGGED BY: T. REED

EXISTING GRADE ELEVATION (FT. AMSL):

LOCATION OR GRID COORDINATES:

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC- LLC	LOCATION HENDERSON NJ	BORING NUMBER PC-30

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
	ASPHALT / ROAD GRAVEL									
	SILTY SAND - GRAVELLY TAN BROWN DRY		SM							
5	WELL GRADED		GM							
10										
15	SILTY SAND BROWN MOIST COBBLES									
20	SILTY SAND GRY BRN GRAVELS TR CLAY WET									
	COBBLES									
25			GM							
	COBBLES									WATER SAMPLE COLLECTED AT 30'
30	SAND / GRAVEL GRAY BRN WELL GRADED SILTY LITTLE CLAY									
35										
	37.5' MUDDY CREEK									
	SILTY CLAY RD BRN SOFT WET		CL							TD 42'
40	BCMG MOIST AT 40'									SPLIT SPOON AT 42'

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL | AUGER | ROCK CORE | THIN-WALLED TUBE | CONTINUOUS SAMPLER | NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY | DEBRIS FILL | SILT | HIGHLY ORGANIC (PEAT) | SAND | SANDY CLAY | GRAVEL | CLAYEY SAND | SILTY CLAY | _____ | CLAYEY SILT | _____

DATE DRILLED: 4/20/98
PAGE: 1 of 1
DRILLING METHOD: HSA
DRILLED BY: WEBER
LOGGED BY: J. CRAWFORD
EXISTING GRADE ELEVATION (FT. AMSL):
LOCATION OR GRID COORDINATES:

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC-LLC	LOCATION HENDERSON NV	BORING NUMBER PC-32

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
	ASPHALT & ROAD GRAVEL									
5	SAND SILTY RD BRN W/ GRAVELS DRY		SM							
10			SM							
15	SAND W/ GRAVEL BRN MOIST									
	— — — — —		▽							
20	SAND & GRAVEL GRAY TO OFF WHITE HIGHLY INDURATED "FANGLOMERATE"									19' HARD DRILLS HARD FROM 19 to 24' SLI HYDROCARBON ODOR
25										STOP AT 27' to REPLACE BIT 4/21 4/22
30	GRAVELY CLAY GRAY GREEN W/ TAN to BROWN STREAKS FIRM - HARD DRY TO WET SILTY		CL				X			
35	SAND & GRAVEL BRN WELL GRADED		SW							
40										

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL; AUGER; ROCK CORE; THIN-WALLED TUBE; CONTINUOUS SAMPLER; NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY; SILT; SAND; GRAVEL; SILTY CLAY; CLAYEY SILT; DEBRIS FILL; HIGHLY ORGANIC (PEAT); SANDY CLAY; CLAYEY SAND; _____; _____

DATE DRILLED	PAGE
4/21/98	1 of 2
DRILLING METHOD: HSA	
DRILLED BY: WEBER	
LOGGED BY: J. CRAWFORD	
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMLC-LLC	LOCATION HENDERSON NV	BORING NUMBER PC-32

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
										T/ MUDDY CREEK 40.5
	SILTY CLAY GRN-GY GRN-OFF WHITE DRY-MOIST FIRM-HARD BCMG SLI SANDY SOFT-FIRM		CL							TD 43
45										
58										GROUNDWATER SAMPLE COLLECTED @ 19 ft

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL; AUGER; ROCK CORE; THIN-WALLED TUBE; CONTINUOUS SAMPLER; NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY; SILT; SAND; GRAVEL; SILTY CLAY; CLAYEY SILT; DEBRIS FILL; HIGHLY ORGANIC (PEAT); SANDY CLAY; CLAYEY SAND; _____; _____

DATE DRILLED	4/22/98
PAGE	2 of 2
DRILLING METHOD	HSA
DRILLED BY	WEBER
LOGGED BY	J. CRAWFORD
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC-LLC	LOCATION HENDERSON NV	BORING NUMBER PC-33

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
	ASPHALT & ROAD GRAVEL									
5	SILTY SAND RD BROWN CRS-V CRS, GRAVELS DRY		SM GM							
10										
15	SAND BROWN GRAVEL BDNG SLI CLAYEY									GROUNDWATER SAMPLE COLLECTED @ 14'
20	SILTY CLAY RD BRN WET FIRM W/ HARD CLASTS BLOCKY		CL							21' T/MUDDY CREEK
25										TD 23'
30										
35										

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL; AUGER; ROCK CORE; THIN-WALLED TUBE; CONTINUOUS SAMPLER; NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY; SILT; SAND; GRAVEL; SILTY CLAY; CLAYEY SILT; DEBRIS FILL; HIGHLY ORGANIC (PEAT); SANDY CLAY; CLAYEY SAND; _____; _____

DATE DRILLED: 4/22/98
PAGE: 1 of 1
DRILLING METHOD: HSA
DRILLED BY: WEBER
LOGGED BY: S. CRAWFORD
EXISTING GRADE ELEVATION (FT. AMSL):
LOCATION OR GRID COORDINATES:

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMLLC	LOCATION HENDERSON NV	BORING NUMBER PC-34

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
	ASPHALT & ROAD GRAVEL									
5	SILTY SAND W/ GRAVEL REDISH BRN LOOSE WELL GRADED DRY		SM FILL							
10										
15	SILTY SAND W/ GRAVEL BRN - TAN MOIST									
	▽									▽ MUDDY CREEK 19.5'
20	CLAY RD BRN FIRM - HRD SILTY IP FEW HARD CLASTS BLOCKY		CL				X			TD 21
25										

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- ☐ _____
- ☐ _____

DATE DRILLED	PAGE
4/22/98	1 of 1
DRILLING METHOD: HSA	
DRILLED BY: WEBER	
LOGGED BY: J. CRAWFORD	
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC-LLC	LOCATION HENDERSON, NV	BORING NUMBER PC-35

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	ASPHALT & ROAD GRAVEL									
5	SILTY SAND W/ GRAVEL REDDISH BROWN DRY WELL GRADED		SM/ GM							
10										
15	GRAVEL W/ SAND WELL GRADED SLI MOIST									
20										
25										
30	? ?									TOP OF SILT BASED ON EXAM OF AUGER FLIGHTS UPON REMOVAL FROM BOREHOLE
	SANDY SILT V. LITE GRAY V. SOFT HOMOGEN. OCC. TRACES SMALL GRAVEL		ML							
35										POOR RETURNS WHILE DRILLING
40										

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL · AUGER · ROCK CORE · THIN-WALLED TUBE · CONTINUOUS SAMPLER · NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY · SILT · SAND · GRAVEL · SILTY CLAY · CLAYEY SILT · DEBRIS FILL · HIGHLY ORGANIC (PEAT) · SANDY CLAY · CLAYEY SAND · _____ · _____

DATE DRILLED	PAGE
4/22/98	1 of 2

DRILLING METHOD: HSA

DRILLED BY: WEBER

LOGGED BY: J. CRAWFORD

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KML-LLC	LOCATION HENDERSON NV	BORING NUMBER PC-35

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
45	SANDY SILT AAB VERY SOFT		ML							POOR RETURNS SAMPLES FROM AUGER FLIGHTS
50										
55										T/ MUDDY CREEK 58'
60	SILTY CLAY RED BROWN STIFF V. SLI PLASTIC DRY		CL							TD 60'

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL | AUGER | ROCK CORE | THIN-WALLED TUBE | CONTINUOUS SAMPLER | NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY | DEBRIS FILL | SILT | HIGHLY ORGANIC (PEAT) | SAND | SANDY CLAY | GRAVEL | CLAYEY SAND | SILTY CLAY | ____ | CLAYEY SILT | ____

DATE DRILLED	PAGE
4/22/98	2 of 2

DRILLING METHOD: HSA

DRILLED BY: WEBER

LOGGED BY: J. CRAWFORD

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCC	LOCATION Henderson, NV	BORING NUMBER PC 36

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	SAND, gravelly, f-m w/c-vc									
	0-12.5' mod yell brn (10YR5/4) f-m sd (w/ minor c-vc) and minor gravel (10-20% of 1/4"-1 1/4"). Dry. Contains 10-15% silt. Minor caliche cement		SW/GW							
5										
10	@12.5 damp									
12.5										
	SAND, silty & gravelly, f-m w/c-vc		GM							wet @ 15' ▽
15	12.5-15' 15-20% 1/4"-1/2" grav and 25-30% silt.									
	SAND, silty, mod yell brn, SA-SR, 30% silt, no gravel f-m w/c grained		SM							
20										
25										Water sample taken when hole 30' deep
27										
	SAND, mod yell brn, vf-f w/m, compact, w/ 20% silt		SP/SM				X	29-30	100	
30.5										
	SAND, silty, gravelly, f-m w/c-vc and 10-15% 1/4" gravel. 25-30% silt. Minor caliche cement		SM							
35										

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL · AUGER · ROCK CORE · THIN-WALLED TUBE · CONTINUOUS SAMPLER · NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY · SILT · SAND · GRAVEL · SILTY CLAY · CLAYEY SILT · DEBRIS FILL · HIGHLY ORGANIC (PEAT) · SANDY CLAY · CLAYEY SAND

DATE DRILLED	PAGE
4-27-98	1 of 2

DRILLING METHOD: Auger
DRILLED BY: Weber
LOGGED BY: E.J. Krish
EXISTING GRADE ELEVATION (FT. AMSL):
LOCATION OR GRID COORDINATES:

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCC	LOCATION Henderson, NV	BORING NUMBER PC 36

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
41			SM							
	SILT, slightly clayey; H brn (5YR6/4) w/ minor 10% vfg sd		ML							
45	TD @ 45									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL; AUGER; ROCK CORE; THIN-WALLED TUBE; CONTINUOUS SAMPLER; NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY; SILT; SAND; GRAVEL; SILTY CLAY; CLAYEY SILT; DEBRIS FILL; HIGHLY ORGANIC (PEAT); SANDY CLAY; CLAYEY SAND; _____; _____

DATE DRILLED: 4-27-98
PAGE: 2 of 2
DRILLING METHOD: Auger
DRILLED BY: Weber
LOGGED BY: E. J. Krish
EXISTING GRADE ELEVATION (FT. AMSL):
LOCATION OR GRID COORDINATES:

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCC	LOCATION Henderson, NV	BORING NUMBER PC38

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	SAND, gravelly, lt brn 0-40', f-m w/ c-vc sd and 30-35% 1/4-3/4" grav. (Minor 3/4"-2" grav), Slight silty 5-10%. Minor caliche cement throughout		SW							
5										
10										
15										
20	20'-40' 20% silt, lt brn sd and grav as above									
25										
30										DAMP @ 33' ▽
35										MOIST-WET @ 40'

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND

DATE DRILLED	PAGE
4-27-98	1 of 2
DRILLING METHOD: AUGER	
DRILLED BY: WEBER	
LOGGED BY: E J Krish	
EXISTING GRADE ELEVATION (FT AMSL)	
LOCATION OR GRID COORDINATES	

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCC	LOCATION HENDERSON, NV	BORING NUMBER PC 38

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
40										
	SAND, silty, mod yell brn, w/ 30% silt w/ 10-15% granules (1/4")		SM							
45										T/MC 46'
	SILT, lt brn, w/ minor clay, moist. tr- sp vfgsd (5%) w/ minor gypsum		ML							water sample taken when hole @ 47'
50										
55							X	54-55	100%	
	TD @ 55									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL | AUGER | ROCK CORE | THIN-WALLED TUBE | CONTINUOUS SAMPLER | NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY | SILT | SAND | GRAVEL | SILTY CLAY | CLAYEY SILT | DEBRIS FILL | HIGHLY ORGANIC (PEAT) | SANDY CLAY | CLAYEY SAND

DATE DRILLED	4-27-98
PAGE	2 of 2
DRILLING METHOD	AUGER
DRILLED BY	WEBER
LOGGED BY	E. J. KRISH
EXISTING GRADE ELEVATION (FT AMSL)	
LOCATION OR GRID COORDINATES	

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMLLC	LOCATION HENDERSON, NV	BORING NUMBER PC-39

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	SAND / SILTY SAND; LT. TAN-BROWN; OCC. GRAVEL; SLI. MOIST; WELL-GRADED									
5										
			SM							
10	SAND AS ABOVE; GRAVEL ZONE @ 10'									
15										
17	▽									
20										
25										
			SM							
30										
	GRAVEL ZONE @ 33-35'									
35										
40										

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	4/27/98
PAGE	1 of 2
DRILLING METHOD	HSA
DRILLED BY	WEBER DRLG.
LOGGED BY	T. REED
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMLLLC	LOCATION HENDERSON, NV	BORING NUMBER PC-39

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
40	SAND AS ABOVE		SM							
44										
45	SILTY CLAY; V. SLI. PLASTIC; LT. REDDISH-BROWN MUDDY CREEK		CL							
46	TD 46'					1	X	46 47.5	1.5'	

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL; AUGER; ROCK CORE; THIN-WALLED TUBE; CONTINUOUS SAMPLER; NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY; SILT; SAND; GRAVEL; SILTY CLAY; CLAYEY SILT; DEBRIS FILL; HIGHLY ORGANIC (PEAT); SANDY CLAY; CLAYEY SAND; _____; _____

DATE DRILLED: 4/27/98
PAGE: 2 of 2
DRILLING METHOD: HSA
DRILLED BY: WEBER DRLG.
LOGGED BY: T. REED
EXISTING GRADE ELEVATION (FT. AMSL):
LOCATION OR GRID COORDINATES:

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCLLC	LOCATION HENDERSON, NV	BORING NUMBER PC-41

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	SAND; SILTY SAND; LT. ORANGE-BROWN; GRAVEL COMMON; WELL-GRADED; SLI. MOIST									
5										
10			SM							
15										
16	GRAVEL ZONE @ 17'									
20										
25										COLLECTED WATER SAMPLE @ 26'
28						1	X	26 27.5	1.2'	
30	SANDY SILT; LT. TAN-BROWN; OCC. GRAVEL; POORLY-GRADED SATURATED		ML							
35										
37.5	SILTY CLAY; LT. REDDISH-TAN; V. SLI. PLASTIC MUDDY CREEK		CL							
39	TD 39'					2	X	38 39.5	1.3'	

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	PAGE
4/28/98	1 of 1

DRILLING METHOD: HSA

DRILLED BY: WEBER DRLG.

LOGGED BY: T. REED

EXISTING GRADE ELEVATION (FT. AMSL):

LOCATION OR GRID COORDINATES:

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCC	LOCATION HENDERSON, NV	BORING NUMBER PC 42

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	SAND, gravelly, lt brn (5YR 6/4), poorly sorted, SA-SR, f-vc w/ 20-30% 1/4"-3/4" gravel. Weak caliche cement throughout									
5										
10	0'-41' sparse silt (5-10%)									
15										
20			SW							
25										
30	31'-41' Calichefied sand and gravel, slow drilling, poor returns									31'-41' hard drilling - sample off auger flites
35										

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- ☐ _____
- ☐ _____

DATE DRILLED	4-28/29-98
PAGE	1 of 2
DRILLING METHOD	AUGER
DRILLED BY	WEBER
LOGGED BY	E.J Krish
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCC	LOCATION HENDERSON, NV	BORING NUMBER PC 42

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
41			SW							wet @ 41' ▽
	SAND, silty, brn gry (5YR4/1), silty (25%) w/ minor vc-granules (10-25%), Sand grains SR-SA, f-m w/c		SM							
50										
	53'-57' mod oran pink (5YR 8/4). 30-40% silt in vf-fg sd w/ spotty weak caliche cement									Water sample taken when hole 55' deep
55								54.5-55	100	
57	SILT, yell gry (5YR8/1) & v. pale orange (10YR 8/2). Slight clay (10%). Tr FeOx after py.		ML							
60	TD Auger @ 60'							60-61	100	
	TD Split Spoon @ 61'									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND

DATE DRILLED	4-28/29-98
PAGE	2 of 2
DRILLING METHOD	AUGER
DRILLED BY	WEBER
LOGGED BY	E. J. KRISH
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCLLC	LOCATION HENDERSON, NV	BORING NUMBER PC-43

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
5	GRAVEL / COBBLES / SAND; LT. YELLOW-BROWN; WELL-GRADED		GM							
10										
12	SAND / SILTY SAND; ABD. GRAVEL; LT. TAN-BROWN; WELL-GRADED		SM							
14										
15	GRAVEL / COBBLES / SAND		GM							
16				▽						
20	SAND; SILTY SAND; ABD. GRAVEL LT. GRAY-TAN; WELL-GRADED		SM							GRAVEL ZONES VERY HARD DRILLING
23.5										
25	GRAVEL / COBBLES		GM							
27										
30	SAND; SILTY SAND; ABD. GRAVEL; LT. GRAY-BROWN; SATURATED		SM							
32										
35	GRAVEL / COBBLES; MICRITIC LIMESTONE W/ OCC. BASALT COBBLES		GM							
37										
38	SAND / SILTY SAND W/ GRAVEL		SM							
	GRAVEL / COBBLES AS ABOVE		GM							

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL; AUGER; ROCK CORE; THIN-WALLED TUBE; CONTINUOUS SAMPLER; NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY; SILT; SAND; GRAVEL; SILTY CLAY; CLAYEY SILT; DEBRIS FILL; HIGHLY ORGANIC (PEAT); SANDY CLAY; CLAYEY SAND; _____; _____

DATE DRILLED	PAGE
4/29/98	1 of 2
DRILLING METHOD: HSA	
DRILLED BY: WEBER DRLG.	
LOGGED BY: T. REED	
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCLLC	LOCATION HENDERSON, NV	BORING NUMBER PC-43

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
	GRAVELS/COBBLES AS ABOVE		GM							
43										
	TD 43'									NOTE: DRIVE CAP FRACTURED FROM HARD DRILLING; HOLE ABANDONED
45										

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED: 4/29/98

PAGE: 2 of 2

DRILLING METHOD: HSA

DRILLED BY: WEBER DRLG.

LOGGED BY: T. REED

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCLLC	LOCATION HENDERSON, NV	BORING NUMBER PC-44

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
5	GRAVEL / COBBLES / SAND; DRY; LT. TAN-YELLOW TO LT. TAN-BROWN; WELL-GRADED		GM							VERY HARD DRILLING IN COBBLES
10										
12.5	SAND / SILTY SAND W/ ABD GRAVEL; LT. GRAY-BROWN; WELL-GRADED		SM							
15	GRAVEL / COBBLES / SAND		GM	▽						
20	SAND - SILTY SAND AS ABOVE; LT. TAN-BROWN; MOIST		SM							
23										
25	COBBLES / GRAVEL / SAND AS ABOVE		GM							
26.5										
30	SAND / SILTY SAND W/ COMMON TO ABD. GRAVEL; LT. YELLOW-BRN; MOIST TO SATURATED		SM							WATER SAMPLE COLLECTED @ 30'
35										

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL; AUGER; ROCK CORE; THIN-WALLED TUBE; CONTINUOUS SAMPLER; NO RECOVERY

- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY; SILT; SAND; GRAVEL; SILTY CLAY; CLAYEY SILT; DEBRIS FILL; HIGHLY ORGANIC (PEAT); SANDY CLAY; CLAYEY SAND

DATE DRILLED	PAGE
4/29/98	1 of 2
DRILLING METHOD: HSA	
DRILLED BY: WEBER DRLG.	
LOGGED BY: T. REED	
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCLLC	LOCATION HENDERSON, NV	BORING NUMBER PC-44

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
40			SM							
41	SILTY CLAY; LT. REDDISH-TAN; SLI. PLASTIC MUDDY CREEK		CL							
						1	X	43 44.5'	0.9'	

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL; AUGER; ROCK CORE; THIN-WALLED TUBE; CONTINUOUS SAMPLER; NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY; SILT; SAND; GRAVEL; SILTY CLAY; CLAYEY SILT; DEBRIS FILL; HIGHLY ORGANIC (PEAT); SANDY CLAY; CLAYEY SAND; _____; _____

DATE DRILLED: 4/29/98
PAGE: 2 of 2
DRILLING METHOD: HSA
DRILLED BY: WEBER DRLG.
LOGGED BY: T. REED
EXISTING GRADE ELEVATION (FT. AMSL):
LOCATION OR GRID COORDINATES:

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCC	LOCATION HENDERSON, NV	BORING NUMBER PC 45

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	GRAVEL, sandy, lt brn (5YR 6/4). 50-60% 1/4"-2" SR-SA gravel and 50-40% f-vc sand. Sparse silt (5-10%). Weak caliche cement									
10	10'-20' smaller diam gravel 1/4"-5/8"		GP / GW							
20	20'-30' gravel 1/4"-7/8"									
25	28'-29' bit-eating basalt boulder									
30	SAND, locally silty, mod yell brn (10YR 5/4). Slightly silty (10%) layers alt/w silty (30%) layers. sand grains are f-c w/ minor vc-granules		SW / SM					31-32	80	moist-wet @ 30'
35								35-36	75	
38	SAND. gravelly, mod yell brn, SA-SR, f-VC sd w/ 20-30%		SW					38.5-39	100	

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND

DATE DRILLED	PAGE
4-29/30-98	1 of 2
DRILLING METHOD: AUGER	
DRILLED BY: WEBER	
LOGGED BY: E. J. KRISH	
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCC	LOCATION HENDERSON, NV	BORING NUMBER PC 45

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
	pea gravel (1/4"-3/8")		SW							
43	SILT, slightly clayey, lt brn (5YR 6/4)		ML							WATER SAMPLE TAKEN WHEN HOLE AT TD
45								45-45.5	100	
	TD Auger 45'									
	TD splitspoon 45.5'									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL · AUGER · ROCK CORE · THIN-WALLED TUBE · CONTINUOUS SAMPLER · NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY · SILT · SAND · GRAVEL · SILTY CLAY · CLAYEY SILT · DEBRIS FILL · HIGHLY ORGANIC (PEAT) · SANDY CLAY · CLAYEY SAND

DATE DRILLED	PAGE
4-28/29-98	2 of 2

DRILLING METHOD: AUGER

DRILLED BY: WEBER

LOGGED BY: E. J. KRISH

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCLLC	LOCATION HENDERSON, NV	BORING NUMBER PC-46

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	COBBLES / GRAVEL / SAND; WELL-GRADED; LT. YELLOW-TAN; ARY									
5			GM							
10										
13	SAND - SILTY SAND; GRAVEL COMMON; LT. YELLOW-BROWN; SLI. MOIST		SM							
15	GRAVEL / COBBLES / SAND; LT. TAN-BROWN; SLI. MOIST		GM							
20	SAND / SILTY SAND AS ABOVE; MOIST TO SATURATED		SM							
22	COBBLES / GRAVEL / SAND AS ABOVE		GM							
25										
27	SAND / SILTY SAND AS ABOVE; LT. TAN-BROWN; SATURATED		SM							
30										
35										

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL; AUGER; ROCK CORE; THIN-WALLED TUBE; CONTINUOUS SAMPLER; NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY; SILT; SAND; GRAVEL; SILTY CLAY; CLAYEY SILT; DEBRIS FILL; HIGHLY ORGANIC (PEAT); SANDY CLAY; CLAYEY SAND; _____; _____

DATE DRILLED	PAGE
4/29/98	1 of 2
DRILLING METHOD: HSA	
DRILLED BY: WEBER DRLG.	
LOGGED BY: T. REED	
EXISTING GRADE ELEVATION (FT. AMSL):	
LOCATION OR GRID COORDINATES:	

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCLLC	LOCATION HENDERSON, NV	BORING NUMBER PC-46

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
40			SM							COLLECTED WATER SAMPLE @ 38'
42	CLAYEY SILT / SILTY CLAY; LT. REDDISH-BROWN; SLI. PLASTIC; MUDDY CREEK		CL			1		43 44.5'	1.5'	

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL; AUGER; ROCK CORE; THIN-WALLED TUBE; CONTINUOUS SAMPLER; NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY; SILT; SAND; GRAVEL; SILTY CLAY; CLAYEY SILT; DEBRIS FILL; HIGHLY ORGANIC (PEAT); SANDY CLAY; CLAYEY SAND

DATE DRILLED	PAGE
4/29/98	2 of 2
DRILLING METHOD: HSA	
DRILLED BY: WEBER DRLG.	
LOGGED BY: T. REED	
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCC	LOCATION HENDERSON, NV	BORING NUMBER PC 47

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
5	GRAVEL, sandy, lt brn (5YR 6/4), 50-60% 1/4"-2" gravel with f-vc sand. Sparse 10% silt. Variable caliche cement									
10	GP 11'-15' pea gravel w/ v. few larger cobbles.									
15	15'-21' hard, slow drilling in strongly calichefied gravel.								▽	@2' damp - moist
21	SAND, silty, gry oran pink (5YR 7/2). SA-SR, f-m sd w/ 25-30% silt. Minor c-vc grains									
25										WATER SAMPLE TAKEN WHEN HOLE COMPLETED
30	SM									
35										TD Auger @ 40' TD Split Spoon @ 41'
38	SILT, sl. clayey (10%), v. pale oran & lt brn, minor gypsum		ML							Split spoon 40'-41' 100% REC.

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL · AUGER · ROCK CORE · THIN-WALLED TUBE · CONTINUOUS SAMPLER · NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY · SILT · SAND · GRAVEL · SILTY CLAY · CLAYEY SILT · DEBRIS FILL · HIGHLY ORGANIC (PEAT) · SANDY CLAY · CLAYEY SAND

DATE DRILLED	PAGE
4-30-98	1 of 1

DRILLING METHOD: AUGER

DRILLED BY: WEBER

LOGGED BY: E.J. KRISH

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCC	LOCATION HENDERSON, NV	BORING NUMBER PC 48

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	GRAVEL, Sandy, mod yell brn (10YR5/4), SA-SR 1/4"-2" gravel w/ 40% f-vc sand. Sparse 5-10% silt. 0'-10' Minor caliche cement		GP							
10	10'-22' hard, slow drilling in strongly calichefied pea gravel (1/4"-5/8"). V. pale orange (10YR8/2) w/ 20% f-c sd			VERY HARD						
22									▽	damp-moist @ 22'
25	SAND, silty, gry orange pink (5YR7/2). Contains 25-30% silt in vf-m w/ c-vc sd + minor granules.		SM							
30										TD Auger 40' TD Split Spoon @ 41'
35										
37	SILT, slightly clayey (5%), mod brn (5YR 5/4) w/ tr. (5%) vf sd		ML							Splitspoon 40'-41', 100% REC

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	4-30-98
PAGE	1 of 1
DRILLING METHOD	AUGER
DRILLED BY	WEBER
LOGGED BY	E.J. KRISH
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMLLC	LOCATION HENDERSON, NV	BORING NUMBER PC-49

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
1	ASPHALT / ROAD GRAVEL									
	SAND; SILTY SAND; LT. YELLOW-BROWN; GRAVEL COMMON; WELL-GRADED									
5										
10			SM-GM							
15										
	SAND AS ABOVE; LT. TAN-BROWN									
20										
25										WATER SAMPLE COLLECTED @ 22'
30	SAND AS ABOVE; LT. GRAY-BRN; SATURATED					1	X	30 31.5	1.1'	
35										
38	SILTY CLAY; LT. REDDISH-TAN; SLI. PLASTIC		CL							
40	MUDDY CREEK									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL; AUGER; ROCK CORE; THIN-WALLED TUBE; CONTINUOUS SAMPLER; NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY; SILT; SAND; GRAVEL; SILTY CLAY; CLAYEY SILT; DEBRIS FILL; HIGHLY ORGANIC (PEAT); SANDY CLAY; CLAYEY SAND; _____; _____

DATE DRILLED	PAGE
4/30/98	1 of 2
DRILLING METHOD: HSA	
DRILLED BY: WEBER DRLG.	
LOGGED BY: T. REED	
EXISTING GRADE ELEVATION (FT. AMSL):	
LOCATION OR GRID COORDINATES:	

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMULLC	LOCATION HENDERSON, NV	BORING NUMBER PC-49

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
40	TO 40'					2	X	40 41.5'	1.5'	

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL | AUGER | ROCK CORE | THIN-WALLED TUBE | CONTINUOUS SAMPLER | NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY | DEBRIS FILL
SILT | HIGHLY ORGANIC (PEAT)
SAND | SANDY CLAY
GRAVEL | CLAYEY SAND
SILTY CLAY | _____
CLAYEY SILT | _____

DATE DRILLED: 4/30/98
PAGE: 2 of 2
DRILLING METHOD: HSA
DRILLED BY: WEBER DRLG.
LOGGED BY: T. REED
EXISTING GRADE ELEVATION (FT. AMSL):
LOCATION OR GRID COORDINATES:

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCLLC	LOCATION HENDERSON, NV	BORING NUMBER PC-S1

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
1	ASPHALT / ROAD GRAVEL									
	SAND / SILTY SAND; ABD. GRAVEL; LT. TAN-BROWN; WELL-GRADED									
5			SM-GM							
	SAND AS ABOVE; LT. GRAY-TAN									
10										
12	▽									
15	SAND AS ABOVE; GRAVEL ZONE @ 16-18'									
20										
			SM-GM							
25										WATER SAMPLE COLLECTED @ 25'
30										
33	SILTY CLAY; LT. TAN; SLI. PLASTIC; MUDDY CREEK		CL							
35	TO 35'					1	X	35 36.5	1.5'	

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	PAGE
4/30/98	1 of 1

DRILLING METHOD: HSA

DRILLED BY: WEBER DRLG.

LOGGED BY: T. REED

EXISTING GRADE ELEVATION (FT. AMSL):

LOCATION OR GRID COORDINATES:

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KGMC-LLC	LOCATION HENDERSON NV	BORING NUMBER PC-52

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	SILTY SAND w/ GRAVEL LT TAN - RED BRN WELL GRADED DRY		SM/ GM							
5										
10										
15										
20	SAND/GRAVEL DARK BRN CLAYEY MOIST BCMG WET									GROUND WATER SAMPLE COLLECTED AT 20'
25	SAND CRS-VCRS DK BRN TR GRAVEL		SM							
30										
33	SILTY CLAY LT GRAY TO OFF WHITE HARD SOFT TO FIRM		CL							33' T/MUDDY CREEK
										TD 34'

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL; AUGER; ROCK CORE; THIN-WALLED TUBE; CONTINUOUS SAMPLER; NO RECOVERY

- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY; SILT; SAND; GRAVEL; SILTY CLAY; CLAYEY SILT; DEBRIS FILL; HIGHLY ORGANIC (PEAT); SANDY CLAY; CLAYEY SAND; _____; _____

DATE DRILLED	PAGE
5/4/98	1 of 1
DRILLING METHOD: HSA	
DRILLED BY: WEBER	
LOGGED BY: J. CRAWFORD	
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCLLC	LOCATION HENDERSON, NV	BORING NUMBER PC-57

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
2	BERM MATERIAL: SAND W/ GRAVEL									
5	SAND W/ SILT; MED. TAN-BROWN; SLI. MOIST; OCC. GRAVEL									
7	▽									
10			SM							
15										
20	SAND AS ABOVE; BECOMING MED. BROWN (LOOKS LIKE COFFEE GROUNDS); OCC. GRAVEL									
25										
30			SM							
35	SAND AS ABOVE; SATURATED					1	X	35 36.5	1.1	

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	5/20/98
PAGE	1 of 2
DRILLING METHOD	HSA
DRILLED BY	WEBER DRLG.
LOGGED BY	T. REED
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	~ 200' EAST OF PC-56

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCLLC	LOCATION HENDERSON, NV	BORING NUMBER PC-57

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
40	GRAVEL ZONE @ 42-45'		SM							
			GM							
45										
			SM							
50										
52	CLAYEY SILT - SILTY CLAY; LT. GREEN-TAN; SLI. PLASTIC MUDDY CREEK		CL-ML			2	X	51 52.5	1.5'	
53	TD 53'									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL; AUGER; ROCK CORE; THIN-WALLED TUBE; CONTINUOUS SAMPLER; NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY; SILT; SAND; GRAVEL; SILTY CLAY; CLAYEY SILT; DEBRIS FILL; HIGHLY ORGANIC (PEAT); SANDY CLAY; CLAYEY SAND; _____; _____

DATE DRILLED	PAGE
5/20/98	2 of 2
DRILLING METHOD: HSA	
DRILLED BY: WEBER DRLG.	
LOGGED BY: T. REED	
EXISTING GRADE ELEVATION (FT. AMSL):	
LOCATION OR GRID COORDINATES: ~200' EAST OF PC-56	

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC - LLC	LOCATION HENDERSON NV	BORING NUMBER PC-61

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	BERM MATERIAL									
5	SANDY GRAVEL DK BRN DRY WELL GRADED SILTY									
10	GRAVELLY SAND DK BRN SILTY WELL GRADED moist		GW							
15	SAND SILTY DK BRN GRAVEL COMMON TR CLAY WET WELL GRADED									
20										
25	GRAVEL SANDY DK BRN TR SILT WELL GRADED 60% GRAVEL 15% SD CRS-V CRS		SW			1	X	25-26	100%	
30	SANDY GRAVEL BRN SILTY									
35	SAND DK BRN CRS GR SILTY POOR GRADED LOOSE SAT OCCASIONAL CLAY LAM		SM			2	X	35-36	100%	

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED: 5/26/98 | PAGE: 1 of 2

DRILLING METHOD: HSA

DRILLED BY: WEIBER

LOGGED BY: J. CRAWFORD

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC-LLC	LOCATION HENDERSON NV	BORING NUMBER PC-61

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
45	SAND BROWN F-V CRS GRN POORLY GRADED		SW							
	SILTY CLAY GRY GRN SLI SANDY FIRM-STIFF		CL			3	X	47-48	100%	
50										T/MUDDY CREEK 47'
										TD 48'
55										45' ALLUVIUM

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL | AUGER | ROCK CORE | THIN-WALLED TUBE | CONTINUOUS SAMPLER | NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY | SILT | SAND | GRAVEL | SILTY CLAY | CLAYEY SILT | DEBRIS FILL | HIGHLY ORGANIC (PEAT) | SANDY CLAY | CLAYEY SAND | _____ | _____

DATE DRILLED: 5/26/98
PAGE: 2 of 2
DRILLING METHOD: HSA
DRILLED BY: WEBER
LOGGED BY: J. CRAWFORD
EXISTING GRADE ELEVATION (FT. AMSL):
LOCATION OR GRID COORDINATES:

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC-LLC	LOCATION HENDERSON NV	BORING NUMBER PC-63

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	BERM MATERIAL									
2										
5	SAND/GRAVEL BRN - DK BRN WELL GRADED SILTY		GM/ SM							
10										
15										
20	SAND/GRAVEL AAB		SM							
25										
30										
34										
35	SILTY CLAY GRN to GRN GY W/ DK ORANGE LAMS SOFT TO FIRM		CL				X	34-37	100%	
40										

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED: 5/27/98

PAGE: 1 of 1

DRILLING METHOD: HSA

DRILLED BY: WEBER

LOGGED BY: J. CRAWFORD

EXISTING GRADE ELEVATION (FT AMSL)

LOCATION OR GRID COORDINATES

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC-LLC	LOCATION HENDERSON NV	BORING NUMBER PC-69

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
5	SILTY SAND RD BRN GRAVEL COMMON WELL GRADED DRY		SM							
10	▽									
15										
20	SILTY SAND BRN - RD BRN GRAVELS WELL GRADED WET		SM GM							
25										
30	SILTY SAND AA IS "SOUPY"		SM							
35										

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	6/1/98
PAGE	1 of 2
DRILLING METHOD	HSA
DRILLED BY	WEBER
LOGGED BY	J. GRANFORD
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC-LLC	LOCATION HENDERSON NV	BORING NUMBER PC-69

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
	COBBLES									
	SILTY SAND BRN – RD BRN GRAVELS COMMON WELL GRADED "SOUPY"		GM							
45										
50	COBBLES									
52										52' MUDDY CREEK
	SILTY CLAY LT RD BRN to V LT GRN GY MOIST SLI PLASTIC SM GRAVELS		CL							

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL | AUGER | ROCK CORE | THIN-WALLED TUBE | CONTINUOUS SAMPLER | NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY | SILT | SAND | GRAVEL | SILTY CLAY | CLAYEY SILT | DEBRIS FILL | HIGHLY ORGANIC (PEAT) | SANDY CLAY | CLAYEY SAND | _____ | _____

DATE DRILLED: 6/1/98
PAGE: 2 of 2
DRILLING METHOD: HSA
DRILLED BY: WEBER
LOGGED BY: J. CRAWFORD
EXISTING GRADE ELEVATION (FT. AMSL):
LOCATION OR GRID COORDINATES:

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION Henderson NV	BORING NUMBER PC 75

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
5	PC 75 located 10' SW of PC 74. See log of PC 74 for lithology (soil boring)				BORE HOLE NO WELL					
10										
15										▽ 16' 4-27-00
20										DRY @ 21'
25	WTR SAMPLE @ 25' thru augers pH 7.6 TDS 8200									▽ 24' 4-27-00
30										
35	TD 40'									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	4-27-00
PAGE	1 of 1
DRILLING METHOD	HSA
DRILLED BY	Compliance
LOGGED BY	E KRISH
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

Monitor Wells

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCLLC	LOCATION HENDERSON, NV	BORING NUMBER PC-1

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	FILL: SAND/GRAVEL IN IMPOUNDMENT BERM									
5	SAND / SILTY SAND; LT. TAN-BROWN; GRAVEL COMMON; WELL-GRADED; DRY		SM-GM							
10	SAND AS ABOVE									
15	CALICHE ZONE @ 17-19'									
20	SAND AS ABOVE; BECOMING MOIST GRAVEL ZONE @ 22'									
23.5	▽			23.79						
25										GROUNDWATER SAMPLE COLLECTED @ 28'
30										
31										
32	SILTY CLAY; RED-BROWN W/ LT. GRAY-GREEN REDUCED ZONES MUDDY CREEK		CL	8/14/48		1	X	32 33.5'	1.2'	
	TD 32'									

EXPLANATION

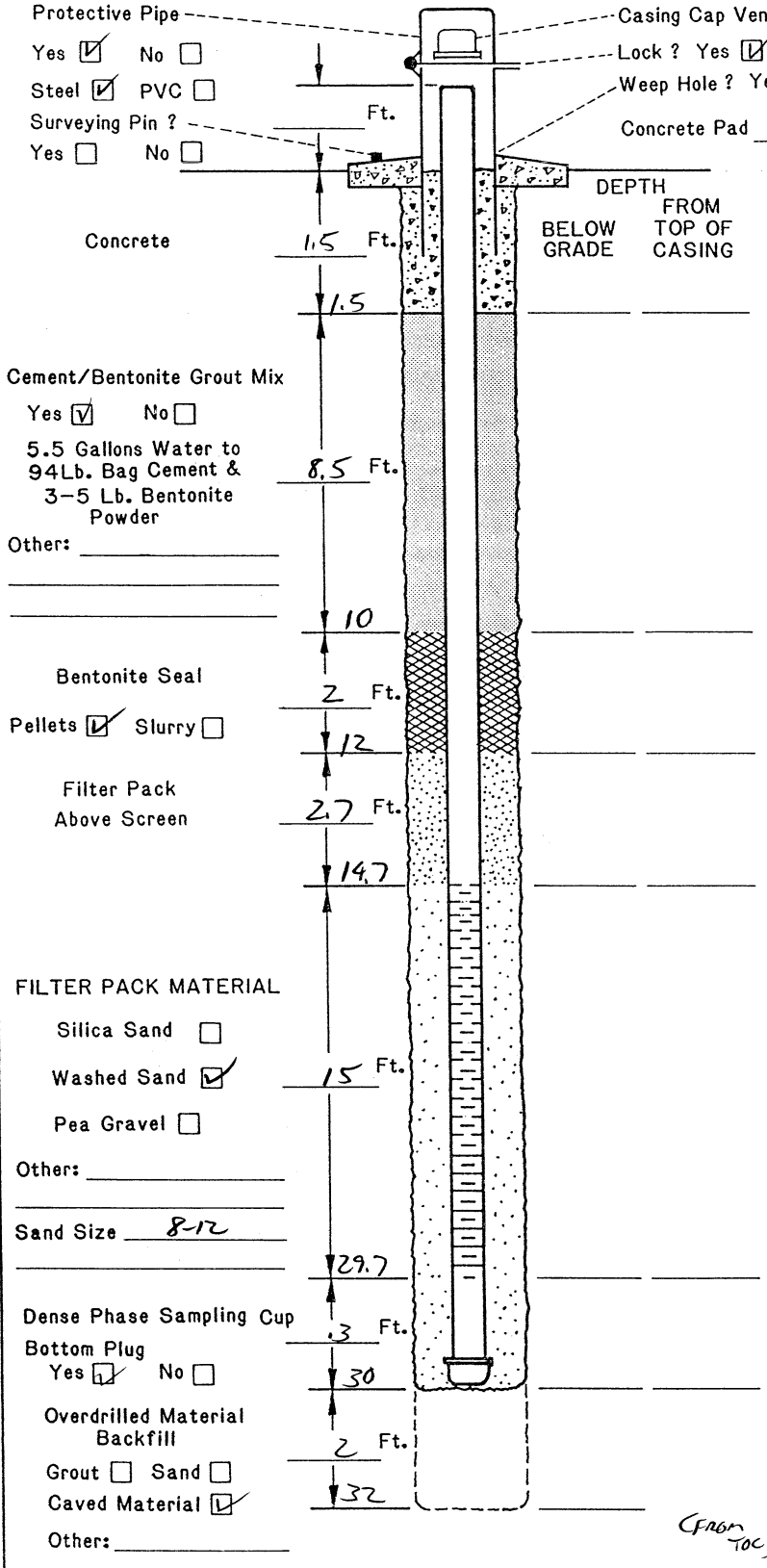
- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	PAGE
3/23/98	1 of 1
DRILLING METHOD: HSA	
DRILLED BY: WEBER DRILLING	
LOGGED BY: T. REED	
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM



DRILLING INFORMATION:

1. Borehole Diameter= 8 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 ____ 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: .020
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 ?
   10 / 1 Minutes/Hours
3. Approximate Water Volume Removed ? 140 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 23.5 Ft. Date 3/23/98
Before Development 20.3 Ft. Date 3/24/98
After Development 22.42 Ft. Date 3/25/98 (FROM TOC)

Driller/Firm ROBERTSON / WEBER DRILLING Drill Rig Type MOBILE B-61 Date Installed 3/24/98

Drill Crew ROBERTSON / JOHNSON / RIVERA Well No. PC-1 Kerr-McGee Hydrologist T. REED

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCLLC	LOCATION HENDERSON, NV	BORING NUMBER PC-4

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	FILL: SAND AND GRAVEL IN IMPOUNDMENT BERM									
5	SAND / SILTY SAND; GRAVEL COMMON TO ABD; LT. TAN-BROWN; DRY TO SLI. MOIST; WELL-GRADED									
10	GRAVEL @ 11-13.5'									
15	SAND AS ABOVE		SM-GM							
20										
22										
25	GRAVEL @ 25-27'									
30	SAND AS ABOVE; SATURATED		SM-GM							
35	GRAVEL @ 38-40'									
40										

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED: 3/24/98

PAGE: 1 of 2

DRILLING METHOD: HSA

DRILLED BY: WEBER DRILLING

LOGGED BY: T. REED

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCLLC	LOCATION HENDERSON, NV	BORING NUMBER PC-4(CONT.)

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
40	GRAVEL @ 41.5-42.5'		SM-GM							GROUNDWATER SAMPLE TAKEN @ 42'
43.5	SILTY CLAY; LT. GRAY-GREEN; SLI. PLASTIC MUDDY CREEK		CL							
45	TD 45'			17 34 52		1	X	45 46.5	1.4'	

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL | AUGER | ROCK CORE | THIN-WALLED TUBE | CONTINUOUS SAMPLER | NO RECOVERY

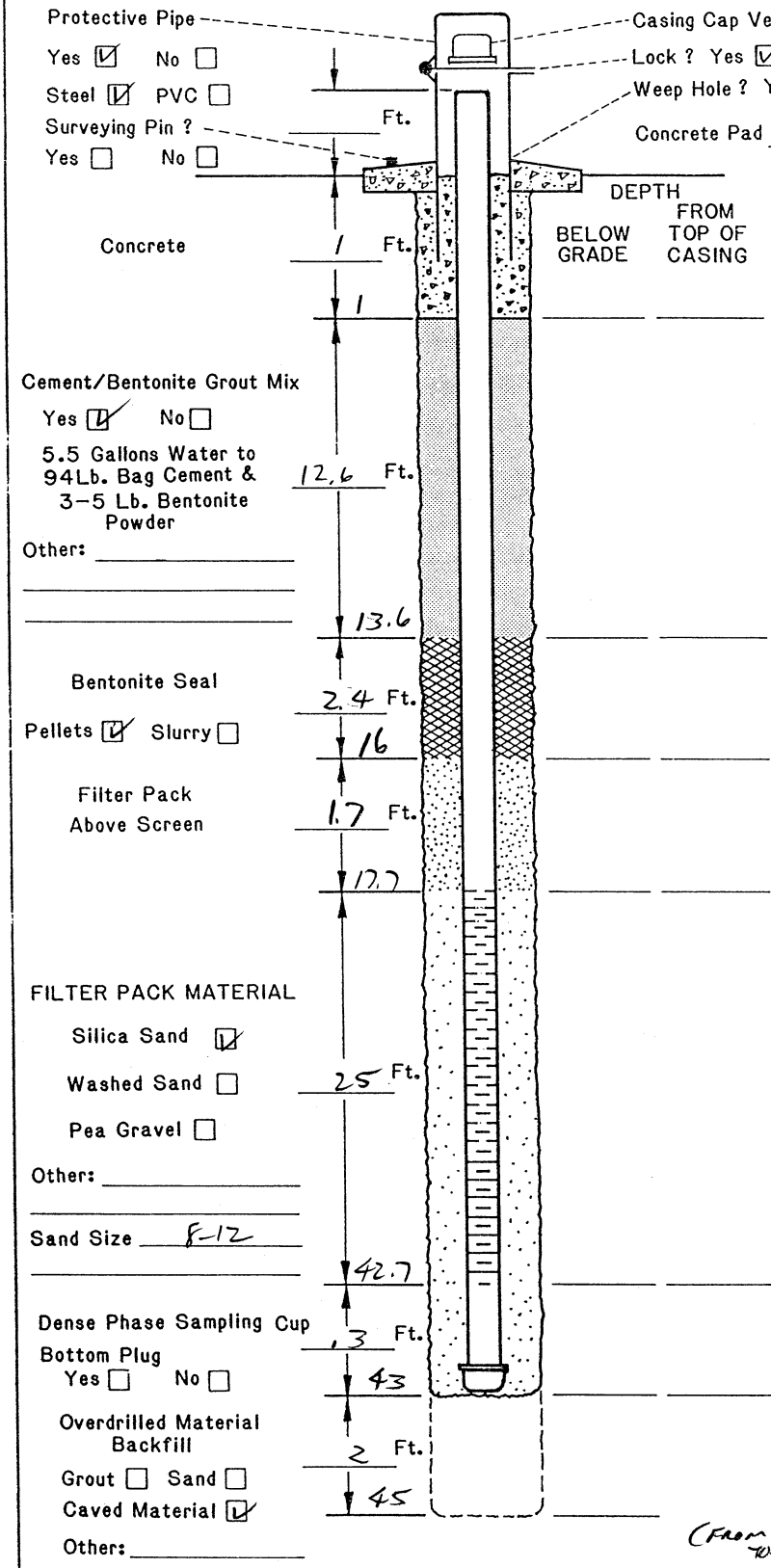
DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY | DEBRIS FILL | SILT | HIGHLY ORGANIC (PEAT) | SAND | SANDY CLAY | GRAVEL | CLAYEY SAND | SILTY CLAY | _____ | CLAYEY SILT | _____

DATE DRILLED: 3/24/98
PAGE: 2 of 2
DRILLING METHOD: HSA
DRILLED BY: WEBER DRILLING
LOGGED BY: T. REED
EXISTING GRADE ELEVATION (FT. AMSL):
LOCATION OR GRID COORDINATES:

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM



DRILLING INFORMATION:

1. Borehole Diameter= 8 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 _____ 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: .020
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 ?
   45 / _____ Minutes/Hours
3. Approximate Water Volume Removed ? 50 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 22' Ft. Date 3/24/98

Before Development _____ Ft. Date _____

After Development 23.65' Ft. Date 3/25/98 (FROM TOC)

Driller/Firm L. ROBERTSON / WEBER DRLG. Drill Rig Type MOBILE B-61 Date Installed 3/24/98

Drill Crew ROBERTSON / JOHNSON / RIVERA Well No. PC-4 Kerr-McGee Hydrologist T. REED

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC-LLC	LOCATION HENDERSON NV	BORING NUMBER PC-10

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	SAND/SILTY SAND TANNISH BROWN WELL GRADED LOOSE V SCI MOIST GRAVELS		SM							AUGER TO TOP OF MUDDY CREEK THEN SPLIT SPOON SAMPLE
5	DECREASE SILT									
10										
15	SAND BCMG BROWN SLI MOIST									
20	SAND BCMG CLAYEY DK BRN MOIST GRAVELS		GM							
25	GRAVEL TO COBBLE									GROUNDWATER SAMPLE COLLECTED AT 22'
30	SAND/CLAYEY SAND DK BRN SLI COHESIVE									T/MUDDY CREEK 34'
34	SILTY CLAY GREENISH GRAY SLI-NON PLASTIC		CL							
35										TD 35

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED: 3/30/98

PAGE: 1 of 1

DRILLING METHOD: HSA

DRILLED BY: WEIBER

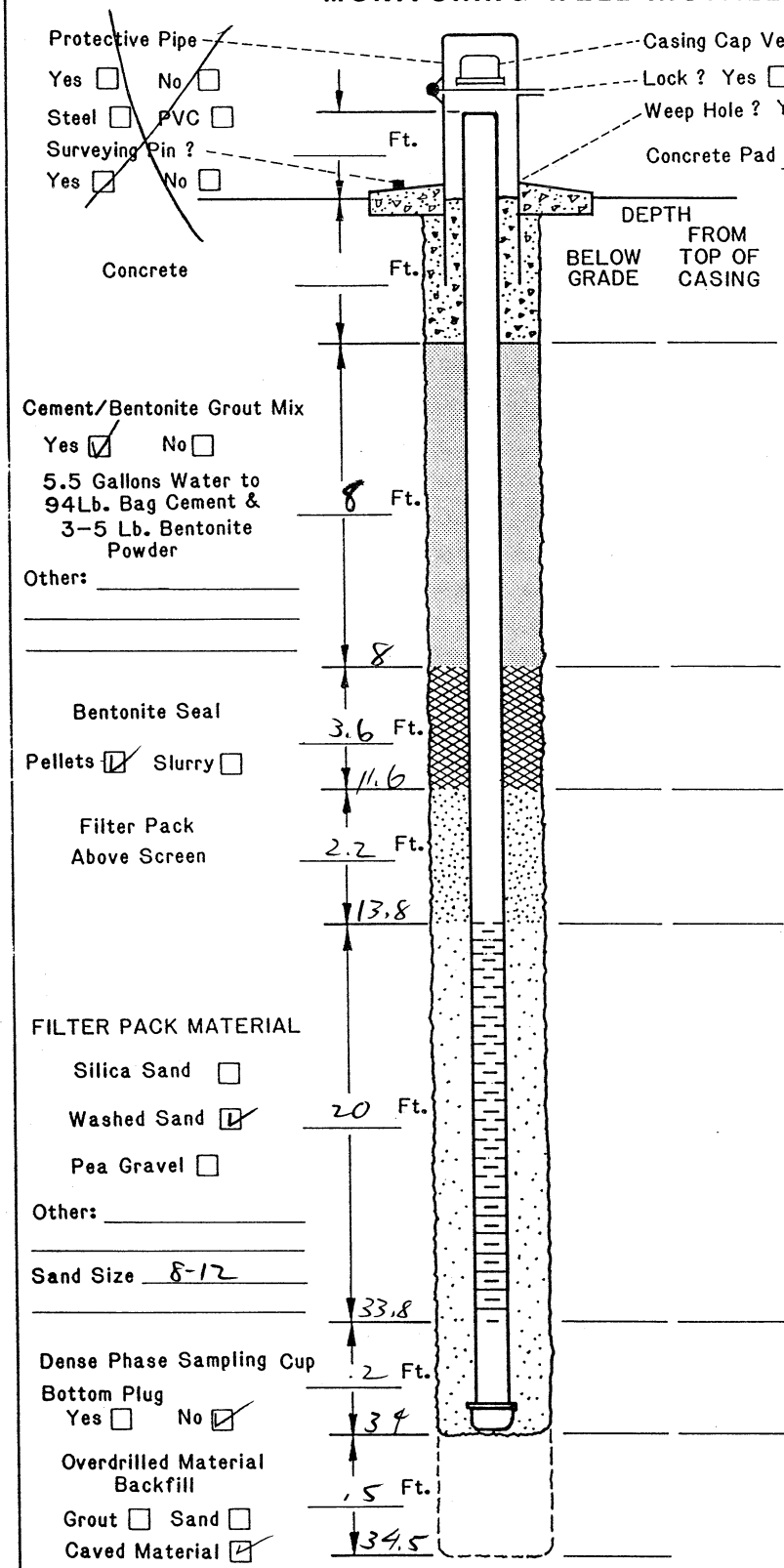
LOGGED BY: J. CRAWFORD

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

FLUSHMOUNT

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM



DRILLING INFORMATION:

1. Borehole Diameter= 8 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 ____ 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: 0,020
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 ?
   ____ / ____ Minutes/Hours
3. Approximate Water Volume Removed ? ____ 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 23' Ft. Date 3/30/98
Before Development 20.95' Ft. Date 4/17/98
After Development 20.95' Ft. Date 4/17/98

Driller/Firm L. ROBERTSON / WEBER DRLG. Drill Rig Type B-61 HDX Date Installed 4/13/98

Drill Crew L. ROBERTSON / R. MONTMEAR Well No. PC-10 Kerr-McGee Hydrologist T. REED

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY Kerr KMC-LLC	LOCATION HENDERSON NV	BORING NUMBER PC 12

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
5	SAND / SILTY SAND LT BRN - TAN WELL GRD GRAVELS TO COBBLES									
10	COBBLES		GM							
15	SAND / GRAVEL BROWN MOIST NOTE INC CLAY BCMG SLI COHESIVE		GC							
20			▽							POOR RETURNS BELOW ▽
25	SD / GRAVELS W/ CLAY AAB									
29.5 / 30	SILTY CLAY GREENISH GRAY SLI PLASTIC		CL							T/ MUDDY CREEK 29.5' GROUNDWATER SAMPLE COLLECTED @ 20'
35										

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED: 3/31/98 | PAGE: 1 of 1

DRILLING METHOD: HSA

DRILLED BY: Weber

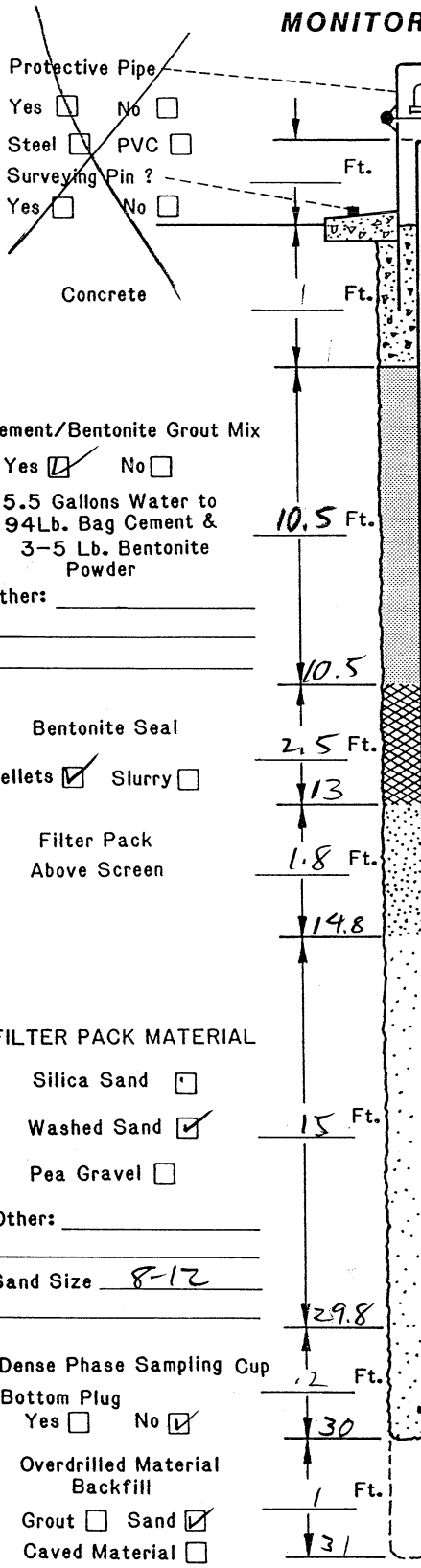
LOGGED BY: Jim CRAWFORD

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

FLUSHMOUNT

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

DEPTH FROM BELOW GRADE / TOP OF CASING

DRILLING INFORMATION:

1. Borehole Diameter= 8 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 _____ 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: 0.020
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 ?
   1 / 1 Minutes/Hours
3. Approximate Water Volume Removed ? 100 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 ROTTEN EGG
7. Did Water have any Color ? Yes ☐ No ☑
   If Yes , Describe _____

WATER LEVEL INFORMATION:

Water Level Summary (From Top of Casing)

During Drilling 21' Ft. Date 3/31/98

Before Development 19.80' Ft. Date 4/17/98

After Development 19.82' Ft. Date 4/17/98

Driller/Firm L. ROBERTSON / NEBER Drill Rig Type B-61 HDX Date Installed 4/13/98

Drill Crew L. ROBERTSON / R. MONTOYA Well No. PC-12 Kerr-McGee Hydrologist T. REED

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMLL-LLC	LOCATION HENDERSON NV	BORING NUMBER PC-17

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	SILTY SAND RD BRN W/ GRAVEL LOOSE DRY		GM							
5										
10										
15	GRAVELLY SAND RD BRN DRY to SLI MOIST SILTY		GM							
		▽	GC							GROUNDWATER SAMPLE COLLECTED AT 19'
20	GRAVELLY SAND W/ CLAY GRAY ISH BRN SLI COHESIVE									
25										POOR RETURNS BELOW ▽
30										
35										

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL | AUGER | ROCK CORE | THIN-WALLED TUBE | CONTINUOUS SAMPLER | NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY | DEBRIS FILL | SILT | HIGHLY ORGANIC (PEAT) | SAND | SANDY CLAY | GRAVEL | CLAYEY SAND | SILTY CLAY | _____ | CLAYEY SILT | _____

DATE DRILLED	PAGE
4/1/98	1 of 2

DRILLING METHOD: HSA

DRILLED BY: WEBER

LOGGED BY: J. CRAWFORD

EXISTING GRADE ELEVATION (FT. AMSL):

LOCATION OR GRID COORDINATES:

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC-LLC	LOCATION HENDERSON NV	BORING NUMBER PC-17

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
45	SAND/GRAVEL									
50	SILTY CLAY V. LIGHT GRAY TO GRAYISH WHITE V. SOFT SATURATED		CL							T/ MUDDY CREEK 48'
	BCMG GRAYISH GREEN SLI MOIST FIRM									TD 55
55										

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL; AUGER; ROCK CORE; THIN-WALLED TUBE; CONTINUOUS SAMPLER; NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

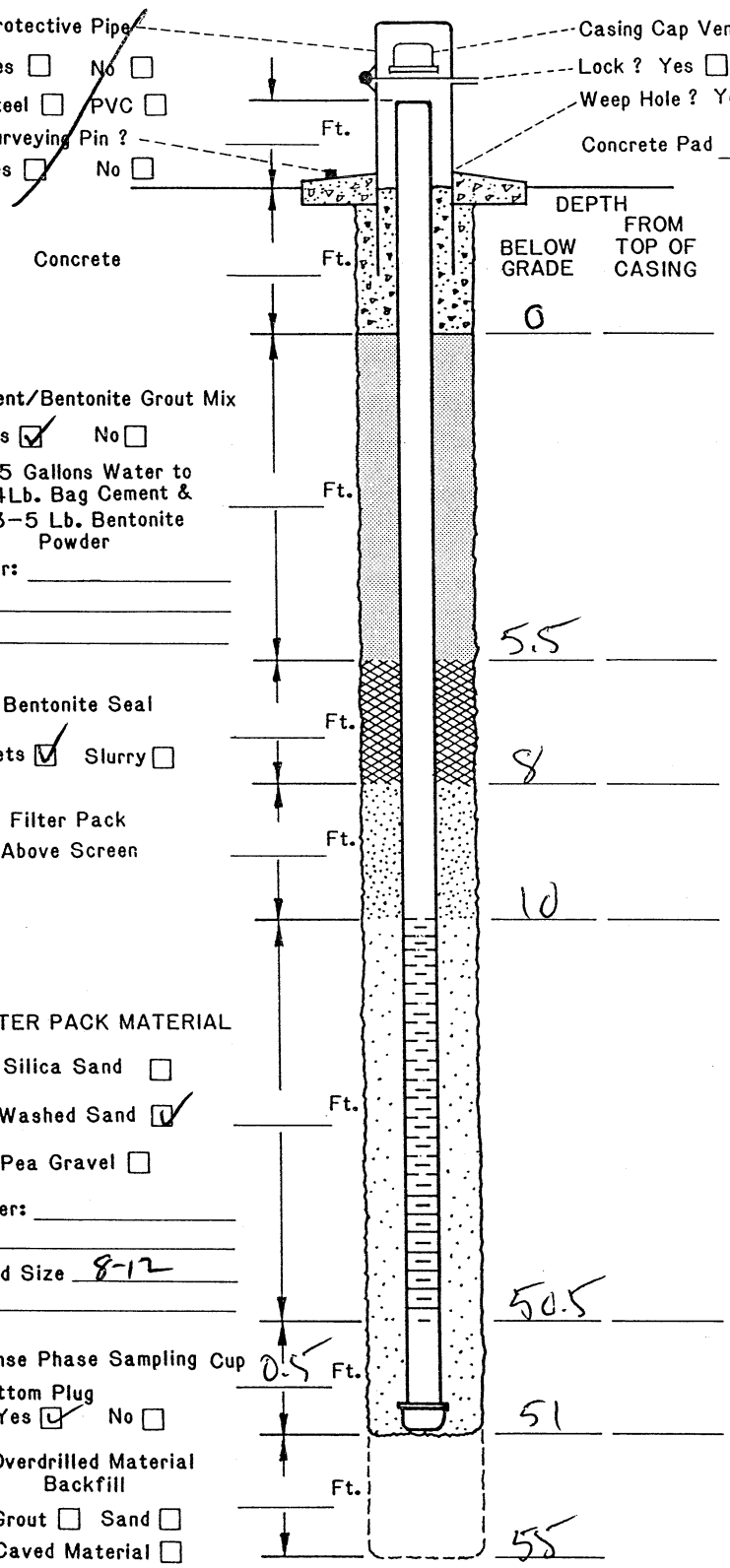
GRAPHIC LOG LEGEND

CLAY; SILT; SAND; GRAVEL; SILTY CLAY; CLAYEY SILT; DEBRIS FILL; HIGHLY ORGANIC (PEAT); SANDY CLAY; CLAYEY SAND; _____; _____

DATE DRILLED	PAGE
4/1/98	2 of 2
DRILLING METHOD: HSA	
DRILLED BY: WEIBEN	
LOGGED BY: J. CRAWFORD	
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

FLUSHMOUNT WELL

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM



DRILLING INFORMATION:

1. Borehole Diameter= _____ 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 _____ 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: .010
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 ?
   _____ / 1 Minutes/Hours
3. Approximate Water Volume Removed ? 110 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 19' Ft. Date 4/1/98
Before Development 19.2' Ft. Date 4/17/98
After Development 19.2' Ft. Date 4/17/98

Driller/Firm WEBER Drill Rig Type Mobile 61 Date Installed 4/8/98
Drill Crew LEE ROBERTSON Well No. PC-17 Kerr-McGee Hydrologist Jim CRAWFORD

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC-LLC	LOCATION HENDERSON NV	BORING NUMBER PC-18

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	SILTY SAND RD BRN DRY WELL GRADED GRAVELS		SM							
5										
10										
15			GM							
20										COLLECT GROUNDWATER SAMPLE AT 22'
25	SAND/GRAVEL BRN DAMP MOIST WELL GRADED									
	▽									
30	SAND/GRAVEL GRAYISH BROWN WELL GRADED SAT SILTY		GM							

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- ☐ _____
- ☐ _____

DATE DRILLED: 4/2/98 | PAGE: 1 of 2

DRILLING METHOD: HSA

DRILLED BY: WEBER

LOGGED BY: J. CRAWFORD

EXISTING GRADE ELEVATION (FT. AMSL):

LOCATION OR GRID COORDINATES:

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMLC - LLC	LOCATION HENDERSON NV	BORING NUMBER PC-18

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
	Sand/Gravel BRN WELL GRADED		GM							SPLIT SPOON AT 42'
45										POOR RETURNS
50	SAND BRN F-CRS gr Sm 1/4" GRAVEL WELL GRADED SAT LOOSE SCI SILTY		SW							T/MUDDY CREEK 52'
T/MC	SILTY CLAY RD BRN W/ Sm FINE SAND & SMALL GRAVELS		CL							
	SILTY CLAY GREENISH GRAY W/ TAN to BROWN VARIG. BLOCKY									DRILL TD 53'

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL · AUGER · ROCK CORE · THIN-WALLED TUBE · CONTINUOUS SAMPLER · NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY · SILT · SAND · GRAVEL · SILTY CLAY · CLAYEY SILT · DEBRIS FILL · HIGHLY ORGANIC (PEAT) · SANDY CLAY · CLAYEY SAND · _____ · _____

DATE DRILLED	PAGE
4/2/98	2 of 2

DRILLING METHOD: HSA

DRILLED BY: WEISER

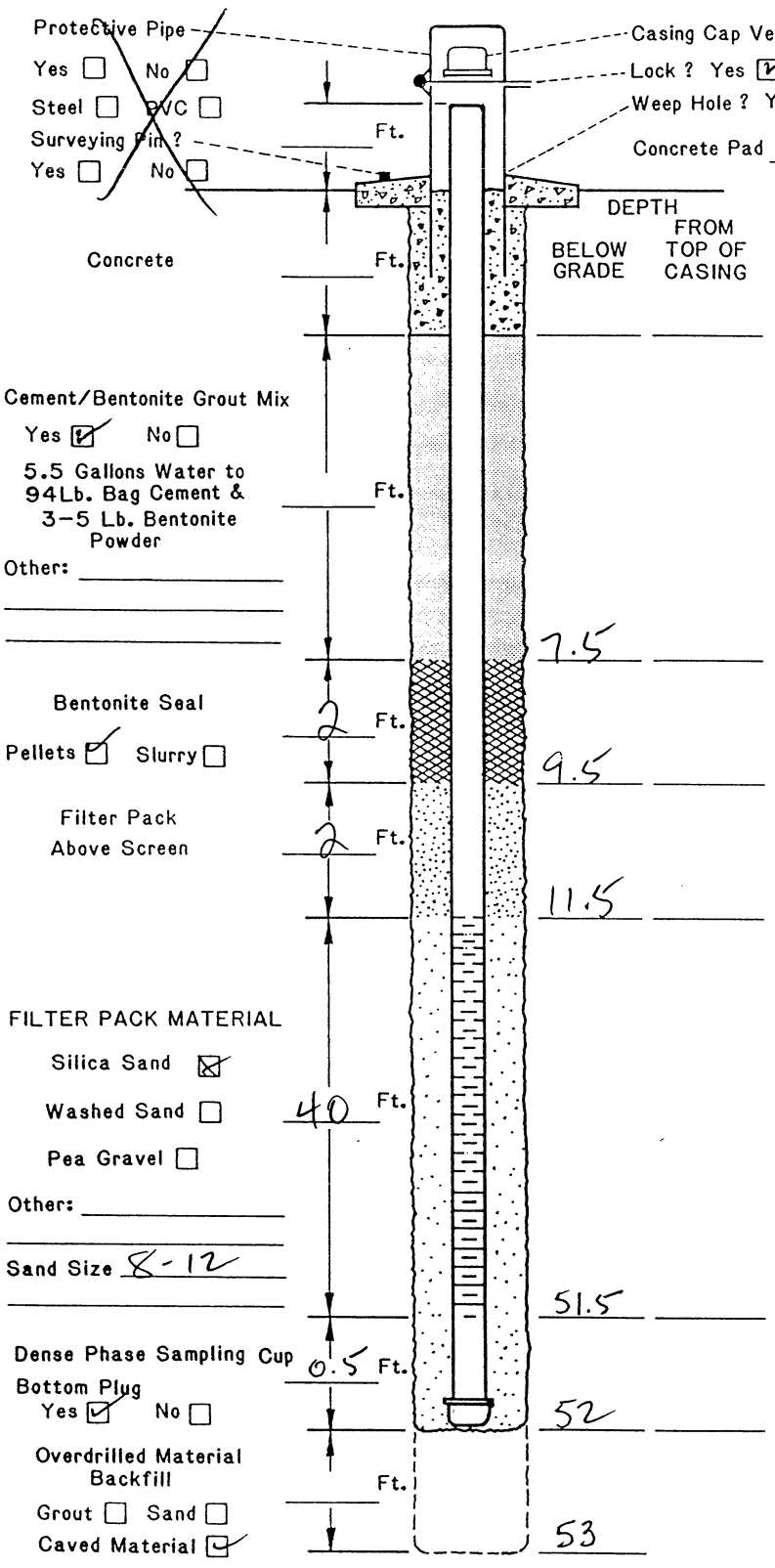
LOGGED BY: J. CRAWFORD

EXISTING GRADE ELEVATION (FT. AMSL):

LOCATION OR GRID COORDINATES:

FLUSH MOUNT

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM



DRILLING INFORMATION:

1. Borehole Diameter= 8 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 _____ 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: 10
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 ?
   _____ / 1 Minutes/Hours
3. Approximate Water Volume Removed ? 110 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 22 Ft. Date 4/8/98
Before Development 19.80' Ft. Date 4/17/98
After Development 19.90' Ft. Date 4/17/98

Driller/Firm WEBER Drill Rig Type MOBILE B-61 XD Date Installed 4/8/98
Drill Crew LEE ROBERTSON Well No. PC-18 Kerr-McGee Hydrologist J. CRAWFORD

P&A 6/03

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC-LLC	LOCATION HENDERSON NV	BORING NUMBER PC-19

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	SILTY SAND W/ GRAVEL RD BRN WELL GRADED DRY									
5			SM							
10	COBBLES		GM							
	SAND/GRAVEL FG LOOSE RD BRN DRY SILTY									
15	COBBLES									
20	SAND/GRAVEL SD MD-CRS GR SILTY LOOSE MOIST		▽							GROUNDWATER SAMPLE COLLECTED AT 35'
25										
	CLAY SANDY W/ SM GRAVELS GRAYISH BRN MOIST SLI PLASTIC FIRM CONSISTENCY		GC							SPLIT SPOONS RECOVERED ONLY FILL. PULLED AUGERS TO VERIFY SAMPLES. DRILLER THOUGHT THIS INTERVAL MIGHT BE MUDDY CREEK DUE TO DRILLING ACTION
30										
35										

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	PAGE
4/2/98	1 of 2
DRILLING METHOD: HSA	
DRILLED BY: WEBER	
LOGGED BY: J. CRAWFORD	
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMLL	LOCATION HENDERSON NV	BORING NUMBER PC-19

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
45	SAND/GRAVELS ARIS		SM/ GM							POOR RETURNS
50										
55										T/MUDDY CREEK 58'
	SILTY CLAY GREEN-GRNISH GY SOFT MOIST		CL							
60										TD 60' CONVERTED TO MONITOR WELL PC-19 (RE-DRILLED 4/4/98)

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL; AUGER; ROCK CORE; THIN-WALLED TUBE; CONTINUOUS SAMPLER; NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

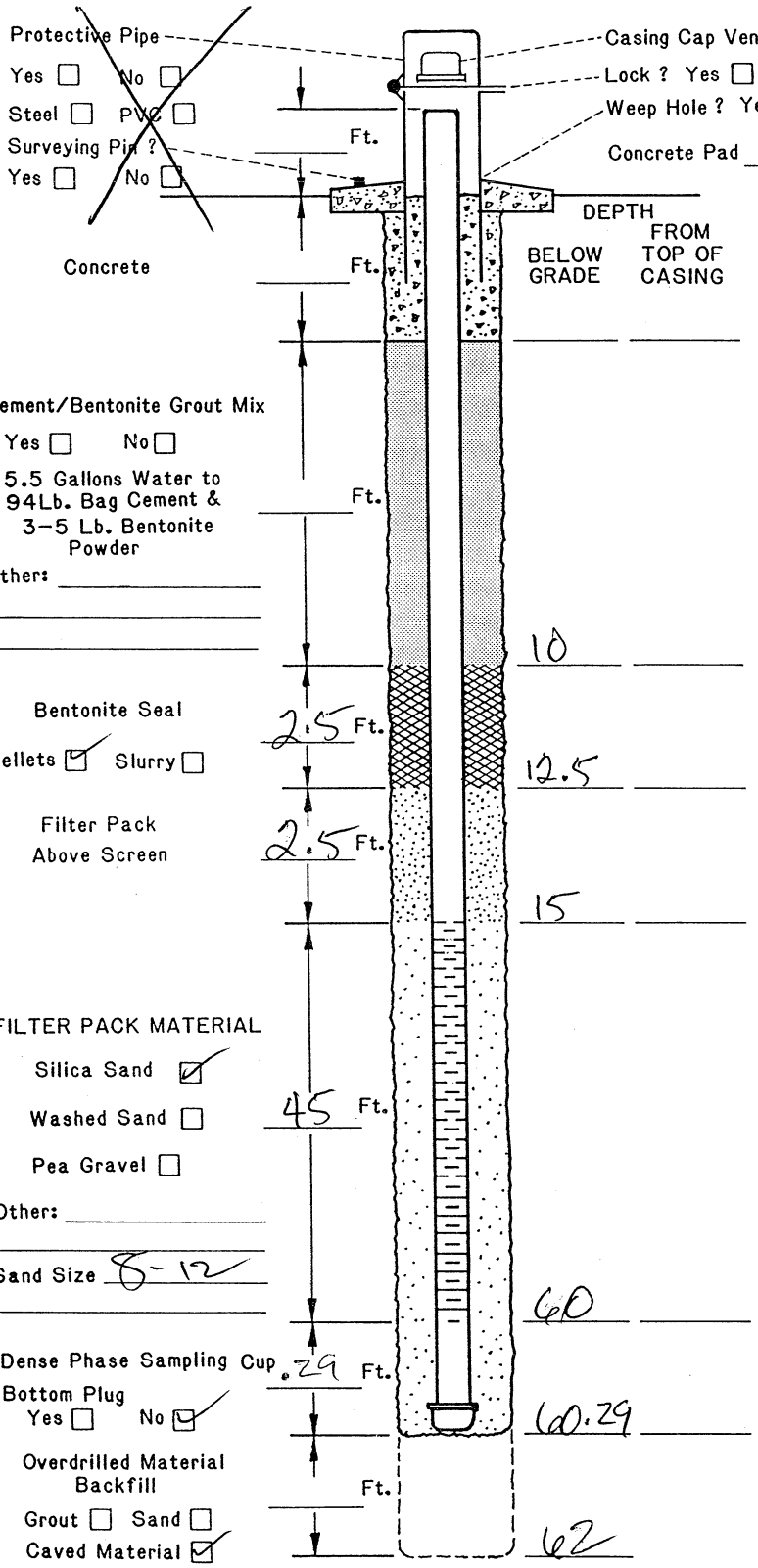
GRAPHIC LOG LEGEND

CLAY; SILT; SAND; GRAVEL; SILTY CLAY; CLAYEY SILT; DEBRIS FILL; HIGHLY ORGANIC (PEAT); SANDY CLAY; CLAYEY SAND; ____; ____

DATE DRILLED	PAGE
4/2/98	2 of 2
DRILLING METHOD: HSA	
DRILLED BY: WEBER	
LOGGED BY: J. CRAWFORD	
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

FLUSH MOUNT

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM



DRILLING INFORMATION:

1. Borehole Diameter= 8 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 _____ 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:
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 ?
   _____ / 1 Minutes/Hours
3. Approximate Water Volume Removed ? 100 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 22' Ft. Date 4/2/98
Before Development 19.89' Ft. Date 4/17/98
After Development 19.89' Ft. Date 4/17/98

Driller/Firm WEBER Drill Rig Type MOBILE B-61 XHD Date Installed 4/6/98
Drill Crew LEE ROBERTSON Well No. PC-19 Kerr-McGee Hydrologist J. CRAWFORD

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCLLC	LOCATION HENDERSON, NV.	BORING NUMBER PC-21

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	SAND; SILTY SAND; GRAVEL COMMON; LT. TAN-BROWN; WELL-GRADED; SLI. MOIST									
5	GRAVEL ZONE @ 5-6'									
10	SAND AS ABOVE		SM-GM							
15	SAND AS ABOVE; BECOMING MOIST TO SATURATED			22 29 34		1	X	17', 18.5'	1.2'	
20			SM-GM							
25	SAND AS ABOVE			3 34 42		2	X	25', 26.5'	1.1'	GROUNDWATER SAMPLE COLLECTED AT ~30'
30										
33.5	SILTY CLAY; LT. REDDISH-BROWN; MOD. PLASTIC MUDDY CREEK		CL							
35	TO 35'					3	X	35', 36.5'	.8'	

EXPLANATION

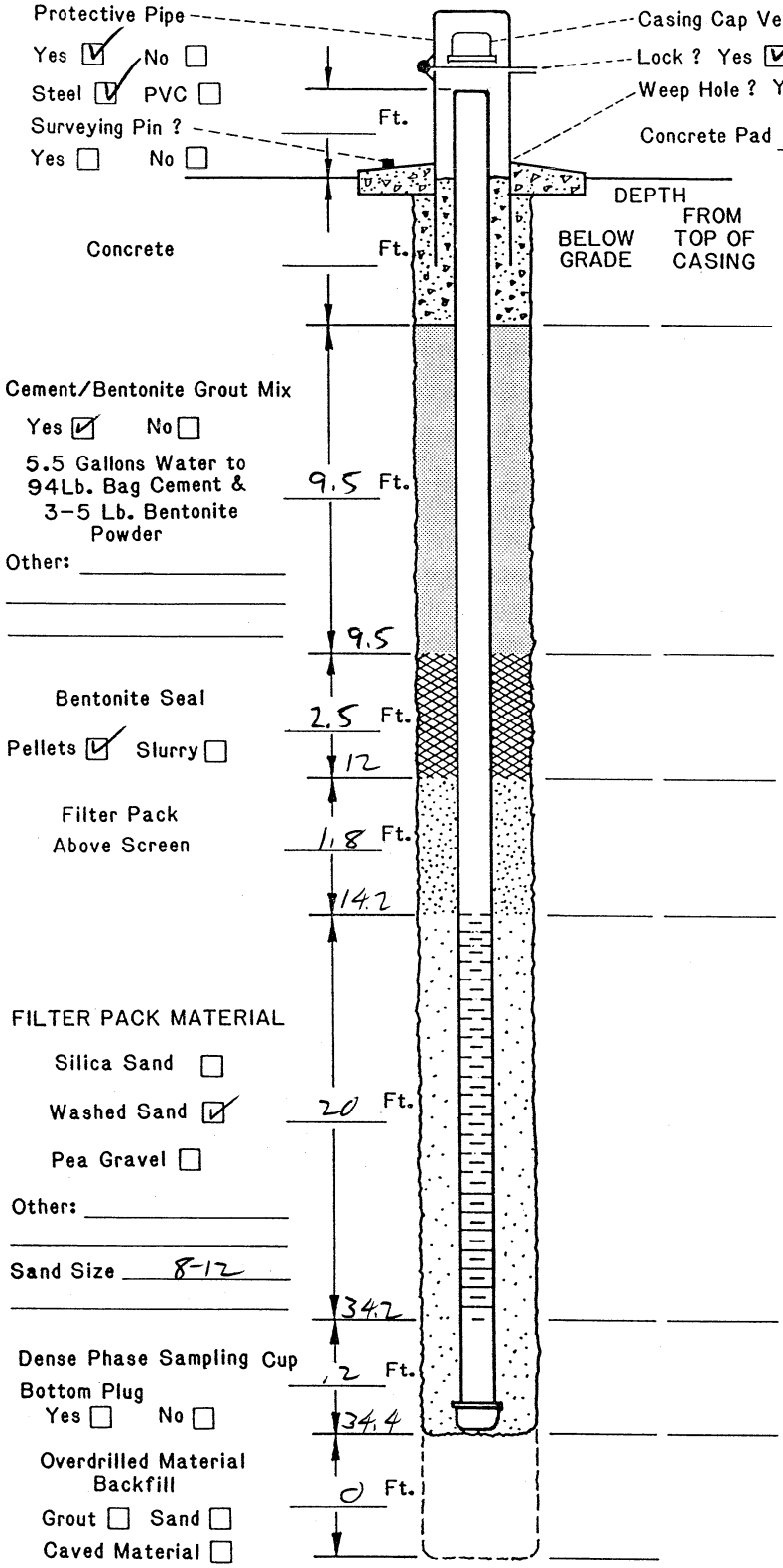
- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	PAGE
4/13/98	1 of 1
DRILLING METHOD: HSA	
DRILLED BY: WEBER DRLG.	
LOGGED BY: T. REED	
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM



DRILLING INFORMATION:

1. Borehole Diameter= 8 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 _____ 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: 0.020
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 ?
   _____ / 1 Minutes/Hours
3. Approximate Water Volume Removed ? 100 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 19' Ft. Date 4/13/98
Before Development 20.53' Ft. Date 4/17/98
After Development 20.60' Ft. Date 4/17/98

Driller/Firm ROBERTSON / WEBER
Drill Rig Type B-61 HDX
Date Installed 4/15/98
Drill Crew L. ROBERTSON / R. MONTUFAR
Well No. PC-21
Kerr-McGee Hydrologist T. REED

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMLLC	LOCATION HENDERSON, NV	BORING NUMBER PC-24

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
1	ASPHALT / ROAD GRAVEL									
	SAND / SILTY SAND W/ GRAVEL; TAN-BROWN; WELL-GRADED; SL. MOIST									
5										
	SAND AS ABOVE		SM-GM							
10										
	GRAVEL @ 13-14'									
15										
18.5	▽									
20	SAND AS ABOVE; SATURATED					1	X	20 21.5	1.1'	
										GROUNDWATER SAMPLE COLLECTED @ ~25'
25										
28	SILTY / SANDY CLAY; REDDISH-BROWN; SL. PLASTIC MUDDY CREEK		CL							
30	TD 30'					2	X	30 31.5	1.4'	

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

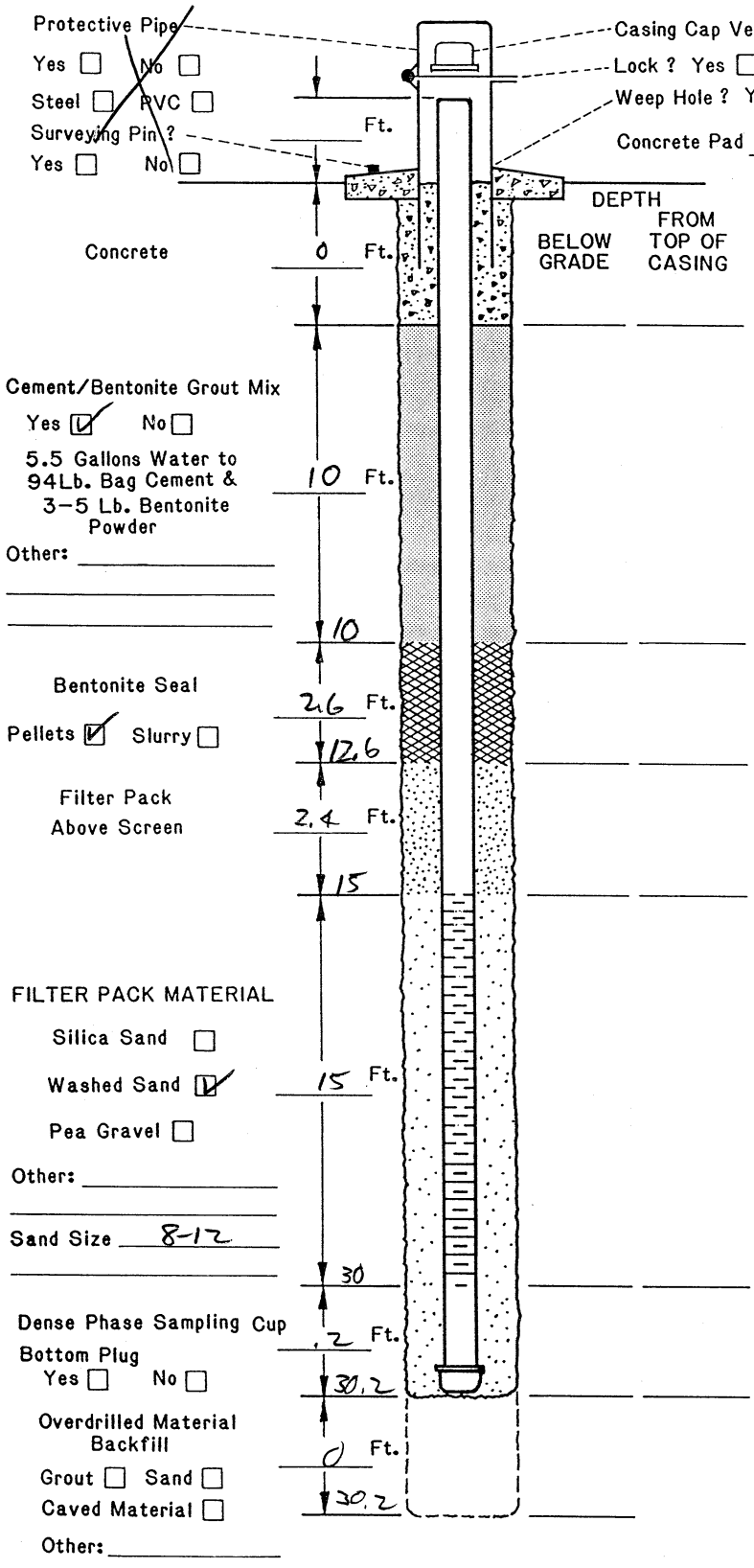
GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	4/14/98
PAGE	1 of 1
DRILLING METHOD	HSA
DRILLED BY	WEBER DRLG.
LOGGED BY	T. REED
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

FLUSHMOUNT well

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM



DRILLING INFORMATION:

1. Borehole Diameter= 8 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 _____ 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: 0.020
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 ?
   _____ / 1 Minutes/Hours
3. Approximate Water Volume Removed ? 100 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 18.5' Ft. Date 4/14/98
Before Development 19.90' Ft. Date 4/17/98
After Development 19.90' Ft. Date 4/17/98

Driller/Firm ROBERTSON / WEBER Drill Rig Type B-61 HDX Date Installed 4/14/98

Drill Crew L. ROBERTSON / R. MONTUFAR Well No. PC-24 Kerr–McGee Hydrologist T. REED

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCLLC	LOCATION HENDERSON, NV	BORING NUMBER PC-28

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
1	ASPHALT / ROAD GRAVEL									
	SAND; SILTY SAND; GRAVEL OCCASIONAL TO COMMON; WELL-GRADED; SLI. MOIST; LT. TAN BROWN		SM-GM							
5										
10										NOTE: BORING ENCOUNTERED ABUNDANT WATER FOR SAMPLING
13	— — — — — —		▽							
15	SAND AS ABOVE; COLOR CHANGE TO LT. TAN									GROUNDWATER SAMPLE COLLECTED @ 15'
18	SILTY CLAY; LT. REDDISH-TAN; SLI. PLASTIC MUDDY CREEK		CL							
20	TD 20'					1	X	20 21.5'	1.0'	

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL; AUGER; ROCK CORE; THIN-WALLED TUBE; CONTINUOUS SAMPLER; NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY; SILT; SAND; GRAVEL; SILTY CLAY; CLAYEY SILT; DEBRIS FILL; HIGHLY ORGANIC (PEAT); SANDY CLAY; CLAYEY SAND; _____; _____

DATE DRILLED	PAGE
4/16/98	1 of 1

DRILLING METHOD: HSA

DRILLED BY: WEBER DRLG.

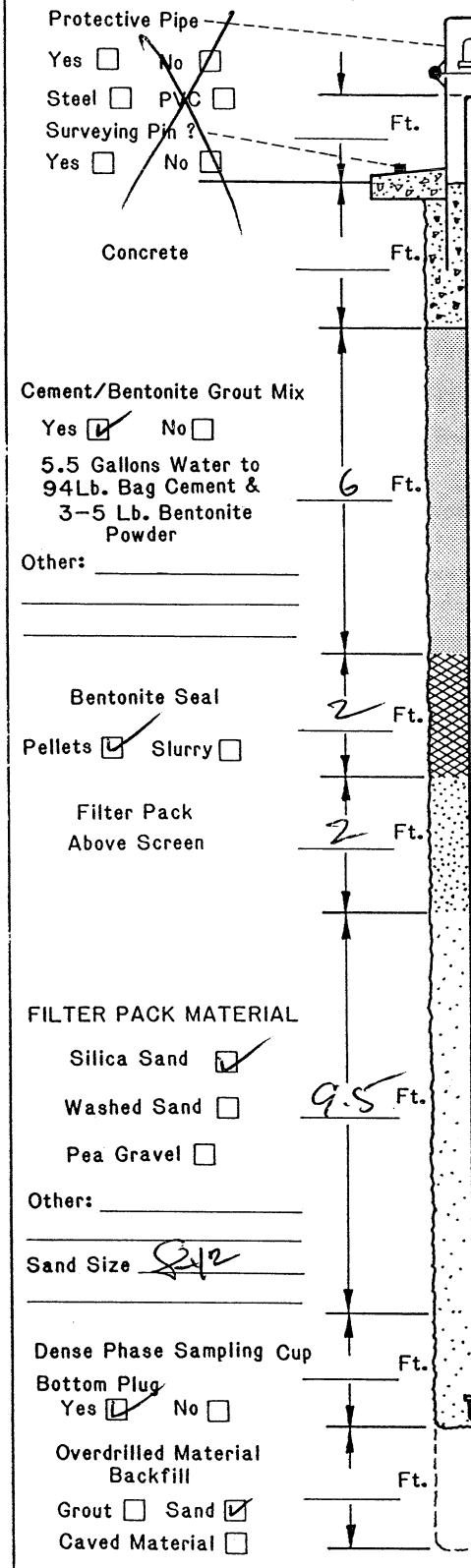
LOGGED BY: T. REED

EXISTING GRADE ELEVATION (FT. AMSL):

LOCATION OR GRID COORDINATES:

FLUSH MOUNT

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM



DRILLING INFORMATION:

1. Borehole Diameter= 8 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 ____ 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: .020
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 ?
   ____ / 1 Minutes/Hours
3. Approximate Water Volume Removed ? 100 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 SLIGHT HYDROCARBON
7. Did Water have any Color ? Yes ☐ No ☑
   If Yes , Describe ____

WATER LEVEL INFORMATION:

Water Level Summary (From Top of Casing)

During Drilling 13' Ft. Date 4/16/98

Before Development ____ Ft. Date ____

After Development 7.00 Ft. Date 5/12/98

Driller/Firm WEBER Drill Rig Type B-61 Date Installed 4/23/98

Drill Crew L. ROBERTSON Well No. PC-28 Kerr-McGee Hydrologist J. CRAWFORD

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC-LLC	LOCATION HENDERSON NV	BORING NUMBER PZ-31

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	ASPHALT / ROAD GRAVEL									
5	SILTY SAND BRN - RD BRN, LOOSE, WELL GRADED, GRAVELS MOIST COBBLES		SM GM							
10										
15	SAND & GRAVEL DAB		▽							
20	INDURATED SAND/GRAVEL CONGLOMERATE WELL GRADED ANGULAR-SA STRONG CEMENT									VERY HARD DRILLING @ 21 - 24 Ft 25-26
25	SANDSTONE TAN-TN BRN VFG POORE GRADED DENSE SILTY									
26.5	SILTY CLAY GY BRN SLI PLAST FEW GRAVELS SU SD4 IP									
30			SM GW							
35										
40										

4/20
4/21

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	4/20/98
PAGE	1 of 2
DRILLING METHOD	HSA
DRILLED BY	WEBER
LOGGED BY	J. CRAWFORD
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMA-CCC	LOCATION HENDERSON NV	BORING NUMBER PC-31

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
45	SAND GRAY BRN - TAN CRS GR W/ GRAVELS									NO RETURNS DESCRIPTION FROM MAT'L ON AUGER FLIGHT AFTER TD
50	50' MUDDY CREEK									
	SILTY CLAY GRN GY to OFF WHITE MOIST to DRY LAMINATED IP FIRM		CL							TD 52'

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL | AUGER | ROCK CORE | THIN-WALLED TUBE | CONTINUOUS SAMPLER | NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

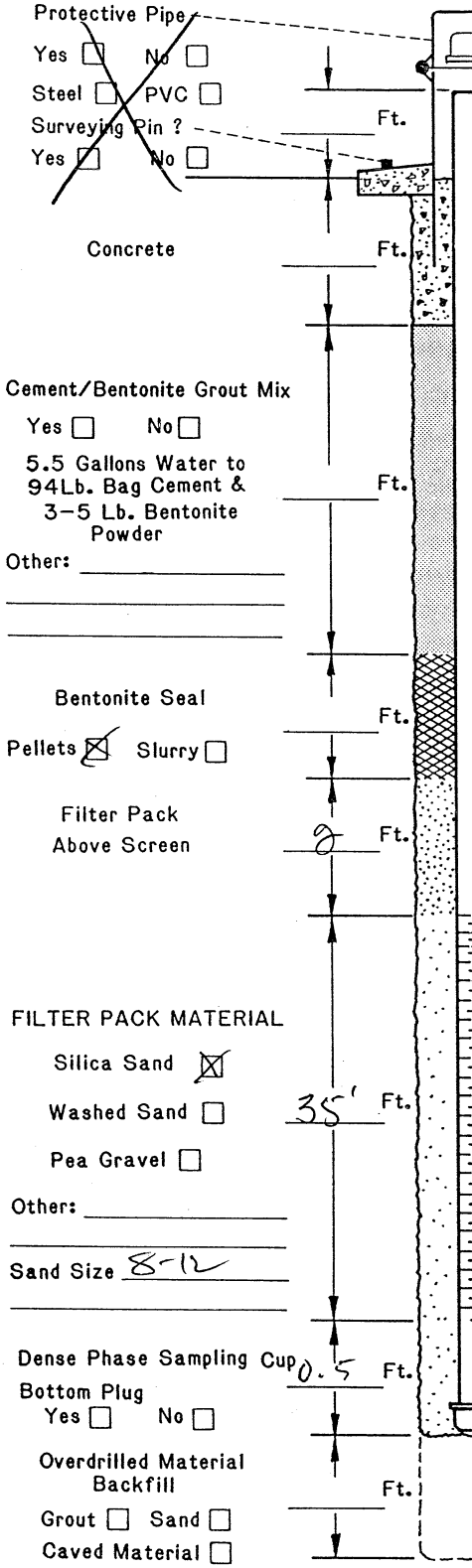
GRAPHIC LOG LEGEND

CLAY | SILT | SAND | GRAVEL | SILTY CLAY | CLAYEY SILT | DEBRIS FILL | HIGHLY ORGANIC (PEAT) | SANDY CLAY | CLAYEY SAND

DATE DRILLED	PAGE
4/21/98	2 of 2
DRILLING METHOD: HSA	
DRILLED BY: WEBER	
LOGGED BY: J. CRAWFORD	
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

FLUSH MOUNT

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM



DRILLING INFORMATION:

1. Borehole Diameter= 8 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 _____ 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: .020
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 ?
   _____ / 2 1 _____ Minutes/Hours
3. Approximate Water Volume Removed ? 100 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 15 Ft. Date 4/21/98
After Development 15.60 Ft. Date 5/11/98

Driller/Firm WEBER ENVIRONMENTAL Drill Rig Type MOBILE B-61 Date Installed 4/21/98

Drill Crew L. ROBERTSON Well No. PC-31 Kerr-McGee Hydrologist J. CRAWFORD

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCLLC	LOCATION HENDERSON, NV.	BORING NUMBER PC-37

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
5	SAND / SILTY SAND; OCC. GRAVEL; LT. TAN-BROWN; WELL-GRADED; GRAVEL ZONE @ 3-4'		SM							
10	SAND AS ABOVE; GRAVEL ZONE @ 12-13'									
15	▽									
20	SAND AS ABOVE; GRAY-BROWN; GRAVEL ZONE @ 22'									
25										
27	SANDY SILT; OCC. GRAVEL; LT. GRAY-BROWN; SATURATED		ML							
30										
35										

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL; AUGER; ROCK CORE; THIN-WALLED TUBE; CONTINUOUS SAMPLER; NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY; SILT; SAND; GRAVEL; SILTY CLAY; CLAYEY SILT; DEBRIS FILL; HIGHLY ORGANIC (PEAT); SANDY CLAY; CLAYEY SAND; _____; _____

DATE DRILLED	PAGE
4/27/98	1 of 2

DRILLING METHOD: HSA

DRILLED BY: WEBER DRLG.

LOGGED BY: T. REED

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KmCLLC	LOCATION HENDERSON, NV	BORING NUMBER PC-37

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
40			ML							
41	SILTY CLAY; LT. REDDISH-BROWN; SLI. PLASTIC MUDDY CREEK		CL							
44						1	X	44 45.5	1.5'	

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL; AUGER; ROCK CORE; THIN-WALLED TUBE; CONTINUOUS SAMPLER; NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY; SILT; SAND; GRAVEL; SILTY CLAY; CLAYEY SILT; DEBRIS FILL; HIGHLY ORGANIC (PEAT); SANDY CLAY; CLAYEY SAND; _____; _____

DATE DRILLED	PAGE
4/27/98	2 of 2

DRILLING METHOD: HSA

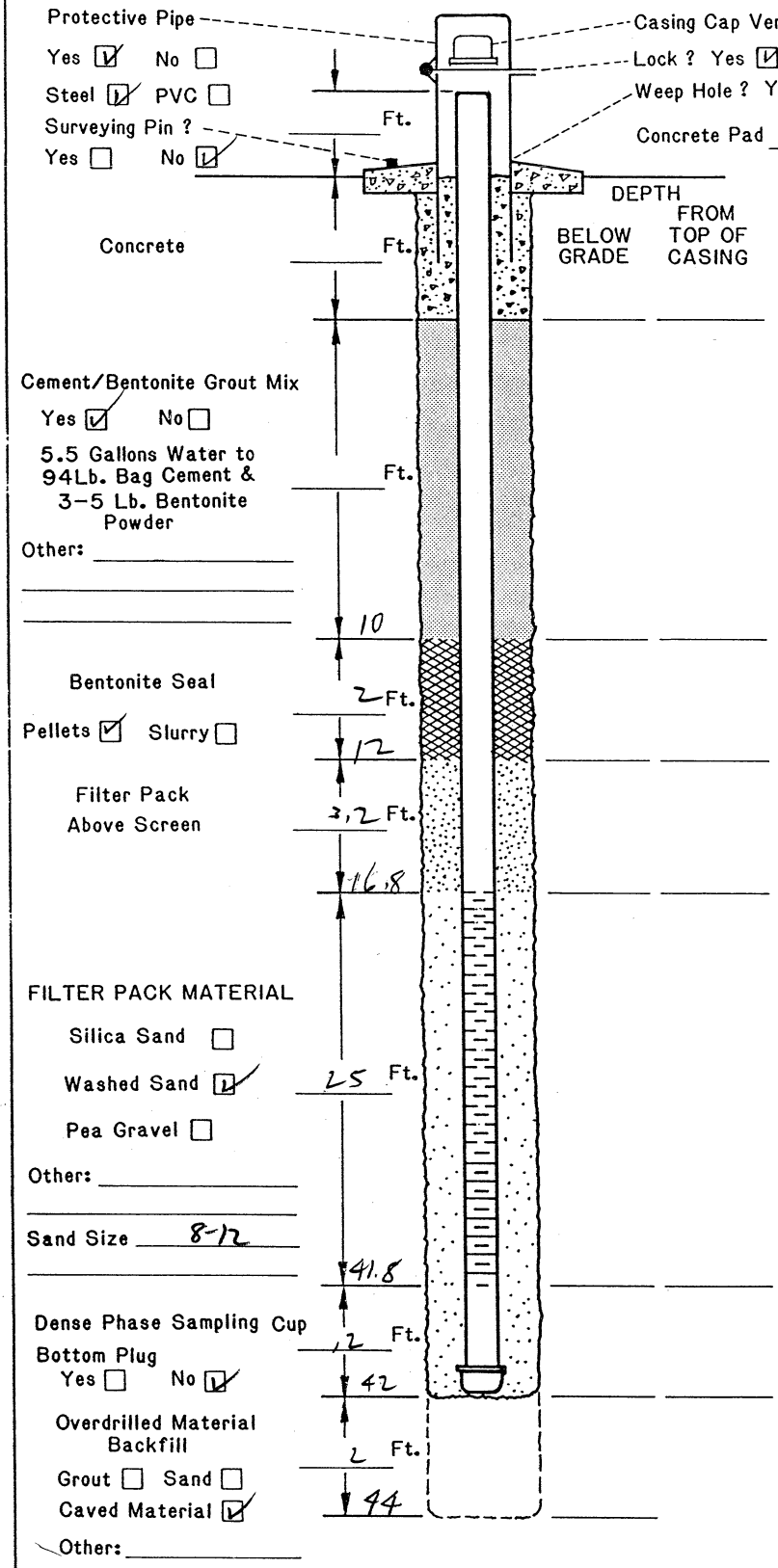
DRILLED BY: WEBER DRLG.

LOGGED BY: T. REED

EXISTING GRADE ELEVATION (FT. AMSL):

LOCATION OR GRID COORDINATES:

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM



DRILLING INFORMATION:

1. Borehole Diameter= 8 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 _____ 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: 0.020
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 ?
   2 / 1 Minutes/Hours
3. Approximate Water Volume Removed ? 90 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 17.0 Ft. Date 4/27/98
Before Development 23.45' Ft. Date 5/1/98
After Development 25.10' Ft. Date 5/1/98

Driller/Firm B. JOHNSON / WINSER
Drill Rig Type B-61
Date Installed 4/27/98
Drill Crew B. JOHNSON / R. MONTHAN
Well No. PC-37
Kerr-McGee Hydrologist T. Rees

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCC	LOCATION HENDERSON, NV	BORING NUMBER PC 40

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	SAND, gravelly, mod yell brn (10YR 5/4). Contains 20-30% 1/4"-3/4" gravel. Slightly silty (5%).									
5	0'-10' w/ minor cobbles - 3/4"-3"									
10	minor caliche cement throughout									
	0'-43' sand is f-m w/ minor c-vc									
15			SW							@ 18' damp
20										
25										
30									▽	@ 30' moist-wet
	32'-35' cobbles w/ caliche cement									
35										

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	PAGE
4-27/28-98	1 of 2
DRILLING METHOD: AUGER	
DRILLED BY: WEBER	
LOGGED BY: E. J. Krish	
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCC	LOCATION HENDERSON	BORING NUMBER PC 40

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
	SAND, gravelly		SW							
43										
45	SAND, silty, gravelly, mod yell brn. Mod-com silt (30%) and 10% granules (1/4") sand grains SR-SA and f-vc		SM							
50										
56	SILT, slightly clayey, yell gry (5Y 8/1), no sd		ML							Water sample taken when hole completed
60	TD 60' AUGER TD 61' Splitspoon						X	60'-61'	100	

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL; AUGER; ROCK CORE; THIN-WALLED TUBE; CONTINUOUS SAMPLER; NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY; SILT; SAND; GRAVEL; SILTY CLAY; CLAYEY SILT; DEBRIS FILL; HIGHLY ORGANIC (PEAT); SANDY CLAY; CLAYEY SAND; _____; _____

DATE DRILLED	PAGE
4-27/28-98	2 of 2

DRILLING METHOD: AUGER

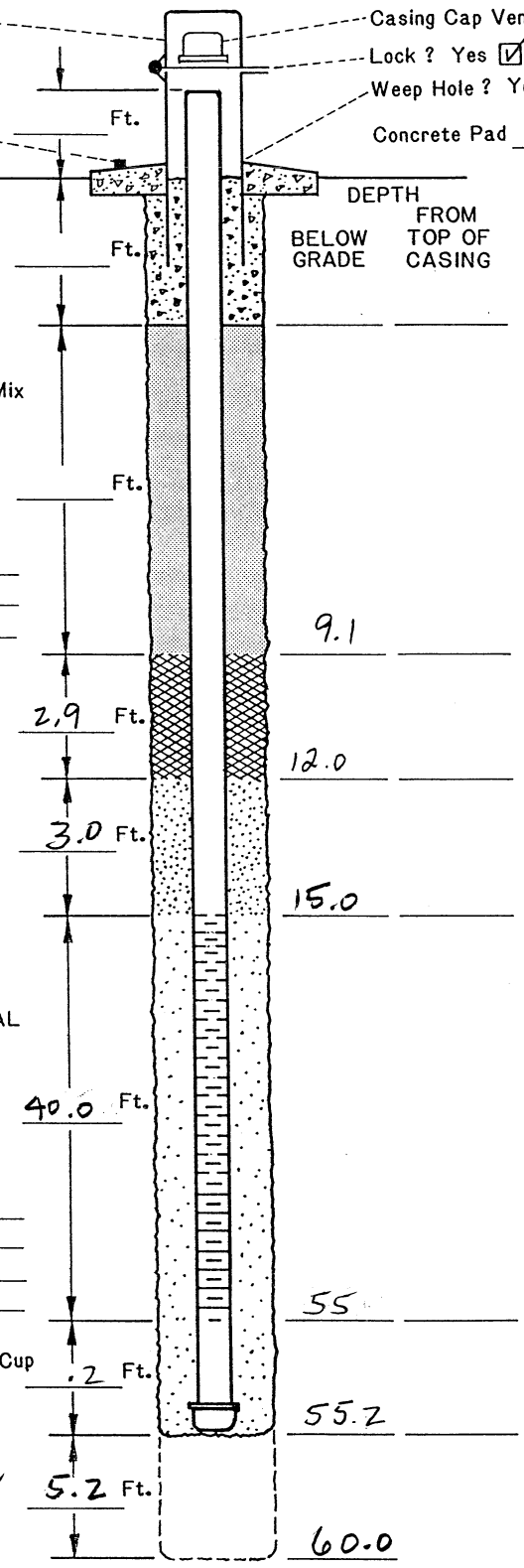
DRILLED BY: WEBER

LOGGED BY: KRISH

EXISTING GRADE ELEVATION (FT AMSL)

LOCATION OR GRID COORDINATES

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM



DRILLING INFORMATION:

1. Borehole Diameter= 8 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 _____ 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: 0.020
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 ?
   5 / 1 Minutes/Hours
3. Approximate Water Volume Removed ? 100 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 30.01 Ft. Date 5/1/98
After Development 30.01 Ft. Date 5/1/98

Driller/Firm WEBER ENVIRONMENTAL Drill Rig Type MOBILE B-61 Date Installed 4-28-98

Drill Crew L. Robertson Well No. PC-40 Kerr-McGee Hydrologist E.J. KRISH

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCLLC	LOCATION HENDERSON, NV	BORING NUMBER PC-50

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
1	ASPHALT / ROAD GRAVEL									
	SAND / SILTY SAND; GRAVEL COMMON TO ABD; LT. TAN-BROWN; WELL-GRADED									
13	— — — — — — —		▽							
15			SM-GM							
28'	GRAVEL ZONE @ 28'									
35	CLAYEY SILT; LT. REDDISH-TAN; SATURATED; MOD. PLASTIC MUDDY CREEK?		MH							SILT NOTED ON AUGERS WHEN WELL INSTALLED; NOT APPARENT WHEN DRILLING

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL | AUGER | ROCK CORE | THIN-WALLED TUBE | CONTINUOUS SAMPLER | NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY | DEBRIS FILL | SILT | HIGHLY ORGANIC (PEAT) | SAND | SANDY CLAY | GRAVEL | CLAYEY SAND | SILTY CLAY | _____ | CLAYEY SILT | _____

DATE DRILLED: 4/30/98
PAGE: 1 of 2
DRILLING METHOD: HSA
DRILLED BY: WEBER DRLG.
LOGGED BY: T. REED
EXISTING GRADE ELEVATION (FT. AMSL):
LOCATION OR GRID COORDINATES:

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCLLC	LOCATION HENDERSON, NV	BORING NUMBER PC-50

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
40			MH							
42.5	SILTY CLAY; LT. GREENISH-WHITE; V. SLI. PLASTIC		CL							
	TO 44'					1		44 45.5	1.1'	

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL; AUGER; ROCK CORE; THIN-WALLED TUBE; CONTINUOUS SAMPLER; NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY; SILT; SAND; GRAVEL; SILTY CLAY; CLAYEY SILT; DEBRIS FILL; HIGHLY ORGANIC (PEAT); SANDY CLAY; CLAYEY SAND; _____; _____

DATE DRILLED	PAGE
4/30/98	2 of 2

DRILLING METHOD: HSA

DRILLED BY: WEBER DRLG.

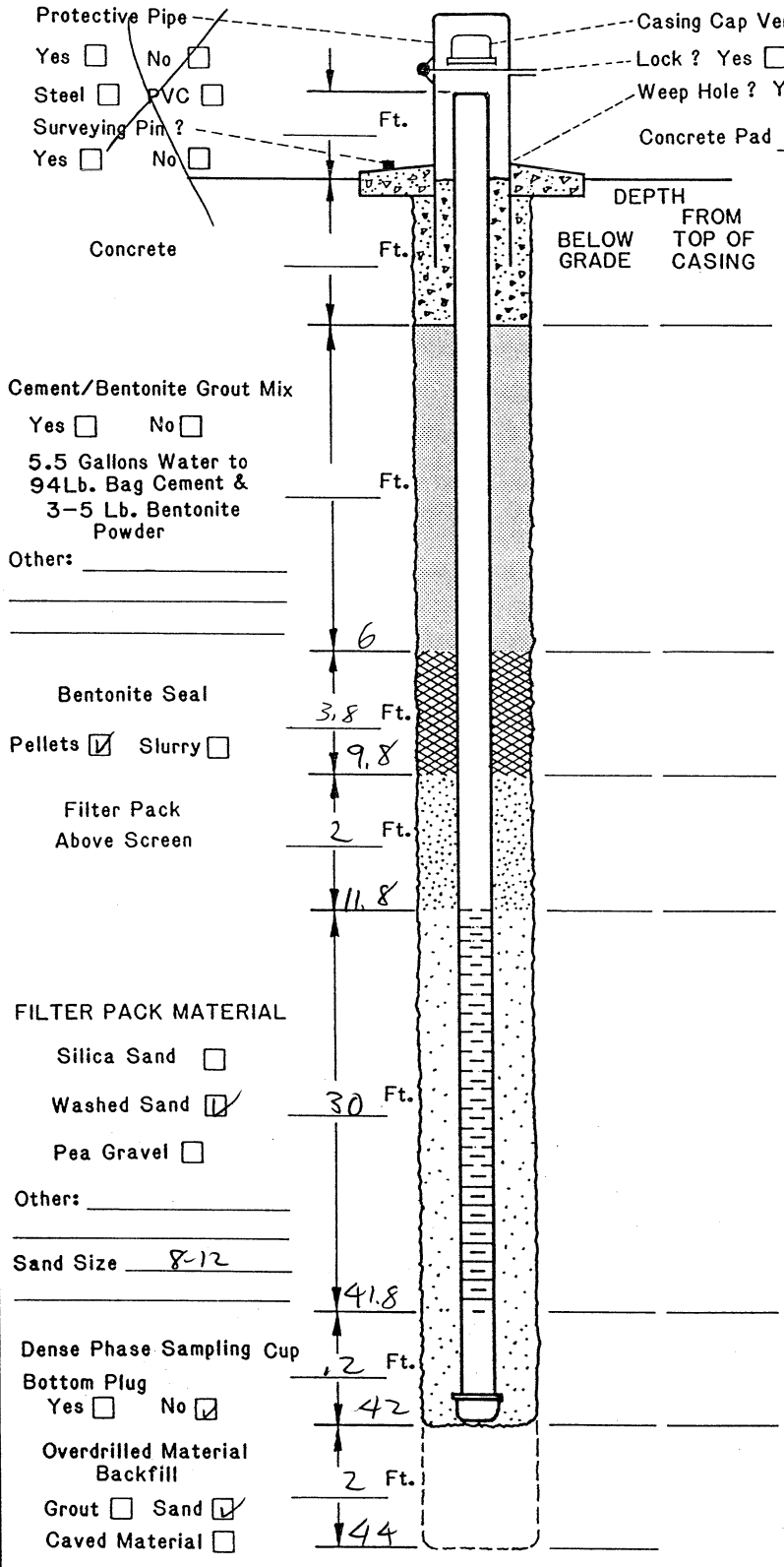
LOGGED BY: T. REED

EXISTING GRADE ELEVATION (FT. AMSL):

LOCATION OR GRID COORDINATES:

FLUSH MOUNT

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM



DRILLING INFORMATION:

1. Borehole Diameter= 8 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 _____ 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: .020
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 ?
   _____ / 1 Minutes/Hours
3. Approximate Water Volume Removed ? 95 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 13' Ft. Date 4/30/98

Before Development _____ Ft. Date _____

After Development 12.45' Ft. Date 5/1/98

Driller/Firm JOHNSON / WATER DRLG. Drill Rig Type B-61 HDX Date Installed 4/30/98

Drill Crew JOHNSON/MONTOYA/MADDOX Well No. PC-50 Kerr–McGee Hydrologist T. REED

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC-LLC	LOCATION HENDERSON NV	BORING NUMBER PC-53

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
5	SILTY SAND RD BRN TO TAN GRAVELS WELL GRADED DRY									
10										
15	SILTY SAND W/ GRAVEL BCMG CLAYEY MOIST DARK BRWN									
20										
25	SAND SILTY BRN-DK BRN SLI CLAYEY TR GRAVELS CRS-V CRS GR SAT									
30										32' T/ MUDDY CLEGIC
	SILTY CLAY GRN GY TO OFF WH LAM FIRM									
										TD 35'

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

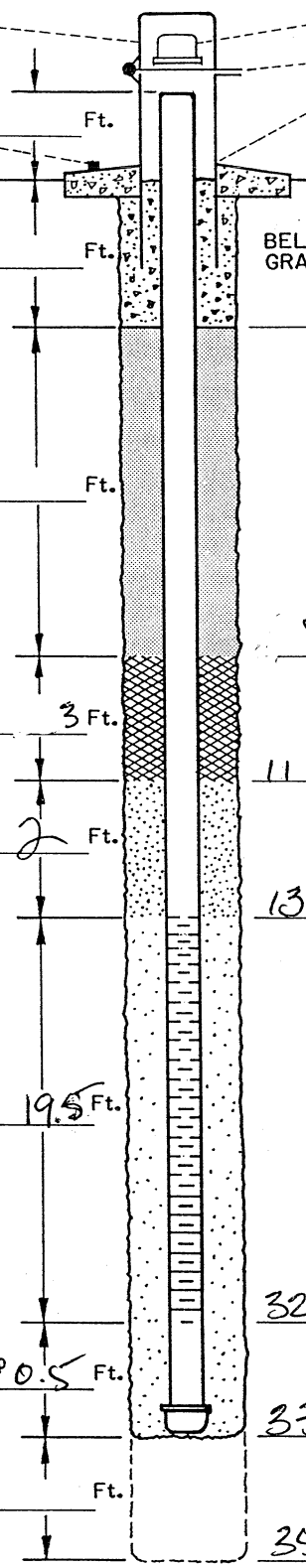
GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	PAGE
5/4/98	1 of 1
DRILLING METHOD: HSA	
DRILLED BY: WEBER	
LOGGED BY: J. CRAWFORD	
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

[CASING PROTECTOR]
FLUSH MOUNT

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM



Protective Pipe
Yes ☒ No ☐
Steel ☒ PVC ☐
Surveying Pin ?
Yes ☐ No ☒

Casing Cap Vent ? Yes ☑ No ☐
Lock ? Yes ☑ No ☐
Weep Hole ? Yes ☐ No ☐

Concrete Pad 1 Ft. x 1 Ft. x 2 Inches

Ft.

Concrete Ft.

DEPTH FROM TOP OF CASING

	BELOW GRADE	TOP OF CASING
	8	
	11	
	13	
	32.5	
	33	
	35	

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

Bentonite Seal
3 Ft.
Pellets ☑ Slurry ☐

Filter Pack Above Screen
2 Ft.

FILTER PACK MATERIAL
Silica Sand ☐
Washed Sand ☑
19.5 Ft.
Pea Gravel ☐
Other: _____
Sand Size 8-12

Dense Phase Sampling Cup 0.5 Ft.
Bottom Plug
Yes ☑ No ☐

Overdrilled Material Backfill
Ft.
Grout ☐ Sand ☐
Caved Material ☐
Other: _____

DRILLING INFORMATION:

1. Borehole Diameter= _____ 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 _____ 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: .020
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 ?
   _____ / 1 Minutes/Hours
3. Approximate Water Volume Removed ? 100 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 18 Ft. Date 5/4/98
After Development 19.54 Ft. Date 5/12/98

Driller/Firm WEBER
Drill Rig Type MOBILE B 61
Date Installed 5/4/98
Drill Crew LEE ROBERTSON
Well No. PC-53
Kerr-McGee Hydrologist J. CRAWFORD

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC-LLC	LOCATION HENDERSON NV	BORING NUMBER PC-54

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
	ASPHALT + ROAD GRAVELS									
5	SLTY SAND RD BROWN w/ GRAVELS WELL GRADED DRY		SM/GM							
10										
15										
20	SAND BROWN - RD BROWN TR GRAVEL SD CRS - V CRS SATURATED		SM							
25										
30										
35	SILT TAN to LT BRN MOIST POORLY GRADED		ML							T/MC 34'
40	SILTY CLAY RD BRN VERY SLI PLASTIC		CL							39.5' T/MUDDY CREEK

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL | AUGER | ROCK CORE | THIN-WALLED TUBE | CONTINUOUS SAMPLER | NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

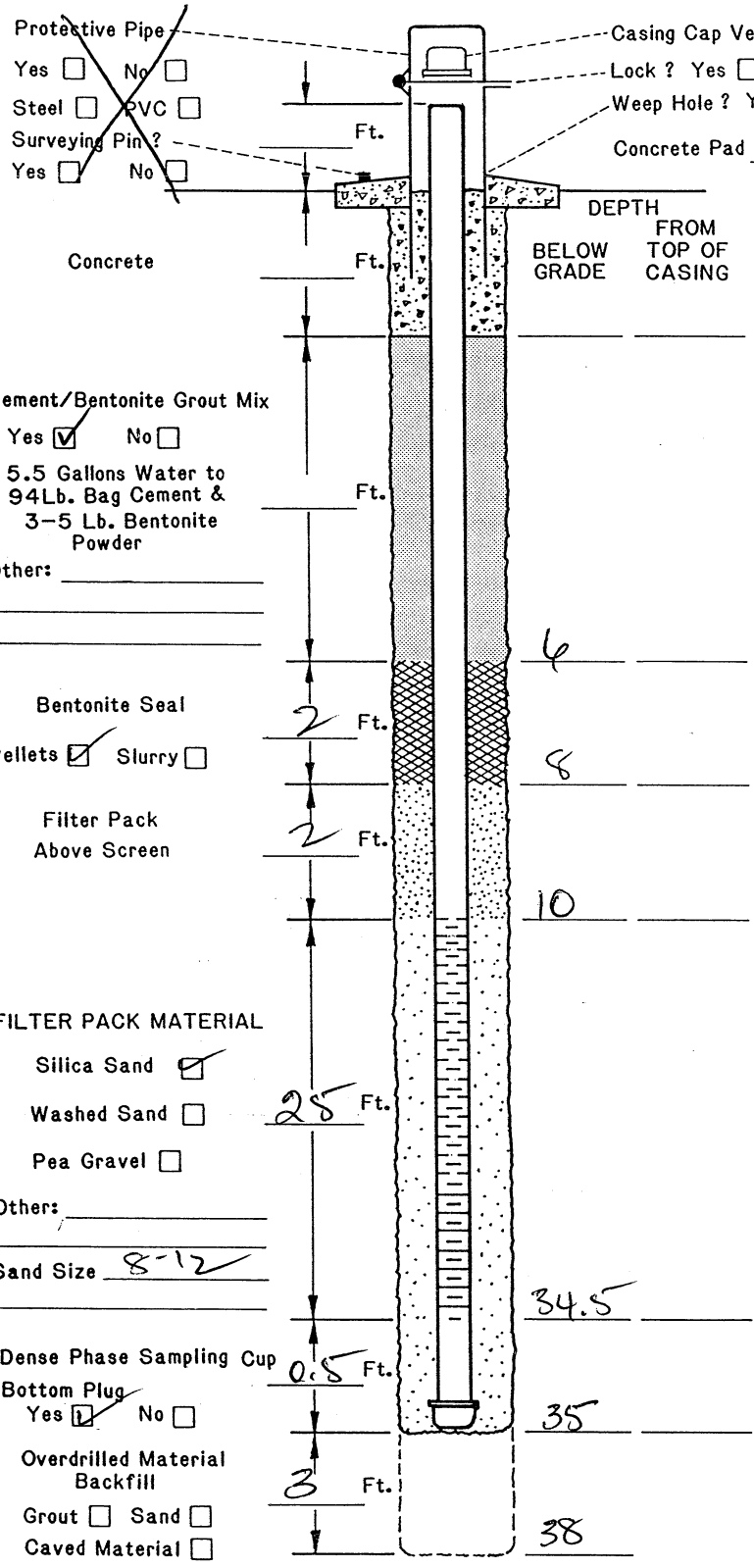
GRAPHIC LOG LEGEND

CLAY | SILT | SAND | GRAVEL | SILTY CLAY | CLAYEY SILT | DEBRIS FILL | HIGHLY ORGANIC (PEAT) | SANDY CLAY | CLAYEY SAND

DATE DRILLED	5/4/98
PAGE	1 of 1
DRILLING METHOD	HSA
DRILLED BY	WEBER DRLG.
LOGGED BY	J. CRAWFORD
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

FLUSH mount

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM



DRILLING INFORMATION:

1. Borehole Diameter= _____ 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 _____ 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: .020
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 ?
   _____ / 1 Minutes/Hours
3. Approximate Water Volume Removed ? ~100 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 16 Ft. Date 5/4/98

Before Development _____ Ft. Date _____

After Development 12.0 Ft. Date 5/12/98

Driller/Firm WEBER

Drill Rig Type MOBILE B61

Date Installed 5/4/98

Drill Crew LEE ROBERTSON

Well No. PC54

Kerr-McGee Hydrologist J. CRAWFORD

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCLLC	LOCATION HENDERSON, NV	BORING NUMBER PC-56

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	BERM MATERIAL: SAND W/ GRAVEL									
2	SAND W/ SILT AND OCC. GRAVEL; MED. TAN-BROWN; SLI. MOIST		SM							
5	GRAVEL @ 5-6'									
7	— — — — — —		▽							
10										
15										
20	GRAVEL ZONE @ 20-23'		GM							
25										
30										
35	SAND AS ABOVE; RESEMBLES COFFEE GROUNDS WHEN FINES ARE RINSED OUT		SM							

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL; AUGER; ROCK CORE; THIN-WALLED TUBE; CONTINUOUS SAMPLER; NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY; SILT; SAND; GRAVEL; SILTY CLAY; CLAYEY SILT; DEBRIS FILL; HIGHLY ORGANIC (PEAT); SANDY CLAY; CLAYEY SAND; _____; _____

DATE DRILLED	PAGE
5/20/98	1 of 2

DRILLING METHOD: HSA

DRILLED BY: WEBER DRLG.

LOGGED BY: T. REED

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCLLC	LOCATION HENDERSON, NV	BORING NUMBER PC-56

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
40	GRAVEL ZONE @ 40-43'		GM							
45			SM							
50										
54										
55	CLAYEY SILT - SILTY CLAY; LT. TAN-BEIGE; SLI. PLASTIC MUDDY CREEK		CL-ML			1	X	55 56.5	1.5'	
58	TD 58'									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

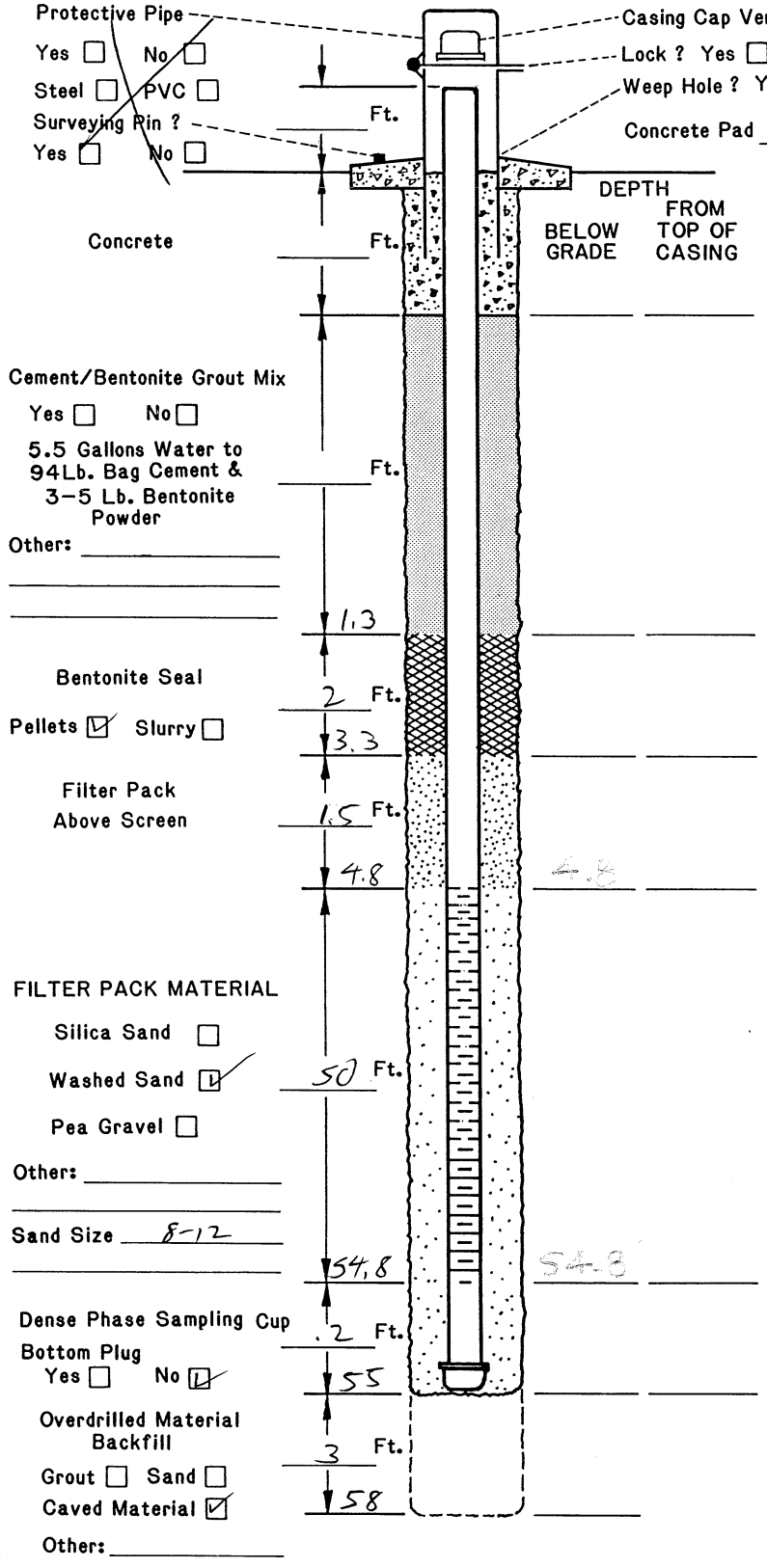
GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	PAGE
5/20/98	2 of 2
DRILLING METHOD: HSA	
DRILLED BY: WEBER DRLG.	
LOGGED BY: T. REED	
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

FLUSH MOUNT

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM



DRILLING INFORMATION:

1. Borehole Diameter= 8 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 _____ 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: 0.020
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 ?
   _____ / 1 Minutes/Hours
3. Approximate Water Volume Removed ? ~100 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 7 Ft. Date 5/21/98

Before Development _____ Ft. Date _____

After Development 7.93' Ft. Date 6/15/98

Driller/Firm ROBERTSON / WEBER DRLG. Drill Rig Type B-61 HDX Date Installed 5/21/98

Drill Crew L. ROBERTSON / M. ROBERSON Well No. PC-56 Kerr-McGee Hydrologist T. REED

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCLLC	LOCATION HENDERSON, NV	BORING NUMBER PC-58

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	BERM: SAND W/ GRAVEL									
2.5	SAND W/ SILT; MED. BROWN; SLI. MOIST; OCC. GRAVEL		SM							
5										
10	GRAVEL ZONE @ 10-14'		GM							
13	▽									
15										
20			SM							
25	GRAVEL ZONE @ 26-28'		GM							
30										
34	SILTY CLAY - CLAYEY SILT; GREENISH-WHITE V. SLI. PLASTIC; MOODY CREEK		CL-ML			1	X	35 36.5	1.5'	
36	TD 36'									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL; AUGER; ROCK CORE; THIN-WALLED TUBE; CONTINUOUS SAMPLER; NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

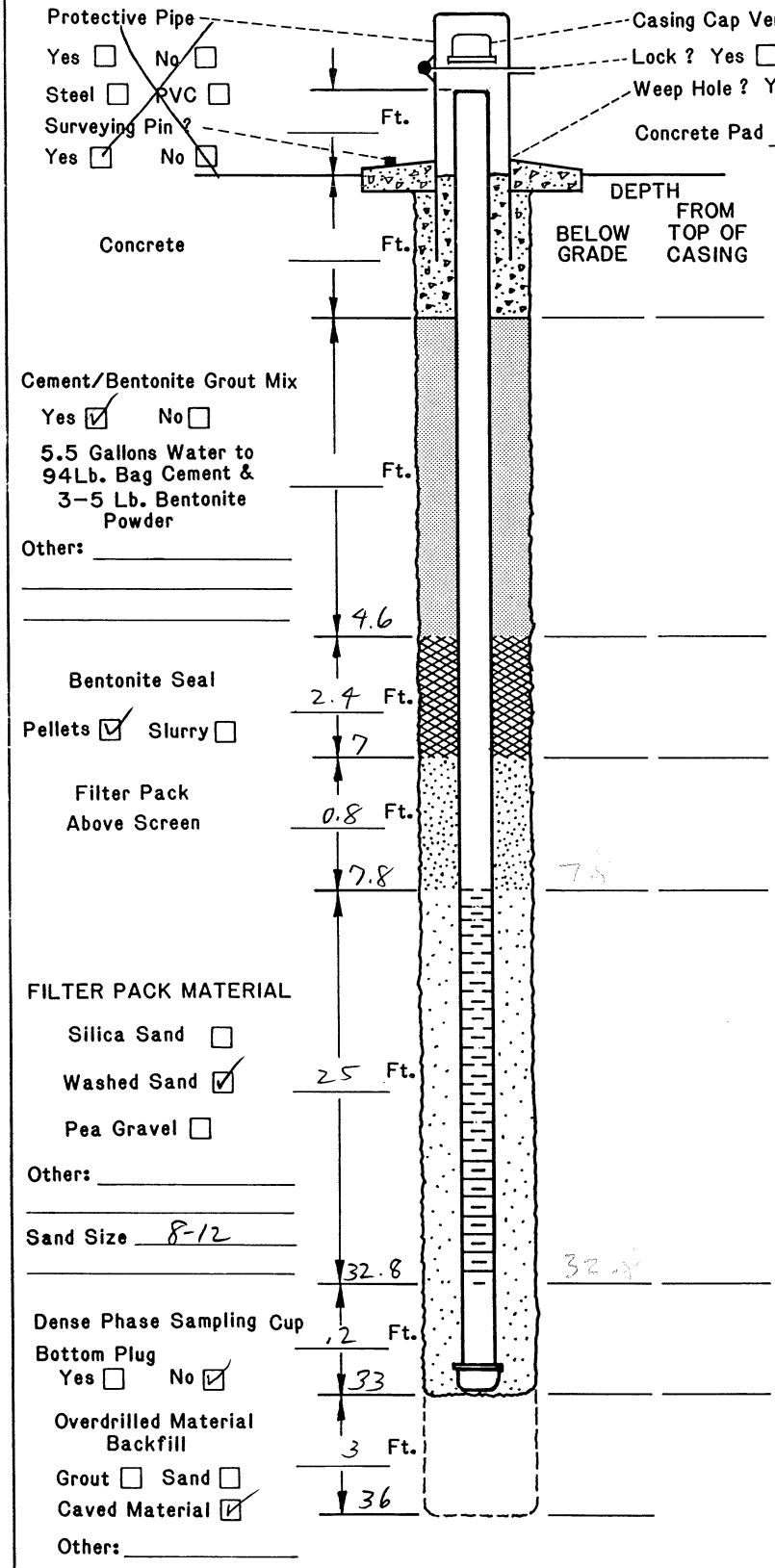
GRAPHIC LOG LEGEND

CLAY; SILT; SAND; GRAVEL; SILTY CLAY; CLAYEY SILT; DEBRIS FILL; HIGHLY ORGANIC (PEAT); SANDY CLAY; CLAYEY SAND; _____; _____

DATE DRILLED	5/21/98
PAGE	1 of 1
DRILLING METHOD	HSA
DRILLED BY	WEBER DRLG.
LOGGED BY	T. REED
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	~500' EAST OF PC-56

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM

FLUSH MOUNT



DRILLING INFORMATION:

1. Borehole Diameter= 8 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 _____ 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: .020
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 ?
   45 / 0 Minutes/Hours
3. Approximate Water Volume Removed ? 80 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 13 Ft. Date 5/21/98

Before Development _____ Ft. Date _____

After Development 8.00 Ft. Date 6/15/98

Driller/Firm ROBERTSON / WEBER DRLG. Drill Rig Type B-61 HDX Date Installed 5/21/98

Drill Crew L. ROBERTSON / M. ROBERSON Well No. PC-58 Kerr-McGee Hydrologist T. REED

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCLLC	LOCATION HENDERSON, NV	BORING NUMBER PC-59

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	BERM: SAND W/ GRAVEL									
2	SAND W/ SILT; OCC. GRAVEL; MED. BROWN; WELL-GRADED; SLI. MOIST									
5	GRAVEL @ 3-4'		SM							
10										
15										
20	SAND AS ABOVE; SATURATED; OCC. GRAVEL		SM							
25										
30	SANDY SILT; LT. BEIGE; SATURATED; OCC FINE-MED. SAND		ML							
34										
35	SILTY CLAY; CLAYEY-SILT; MED-GREEN-BEIGE; V. SLI. PLASTIC MUDDY CREEK		CL-ML							
38	TD 38'					1	X	38 39.5	1.4'	

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL; AUGER; ROCK CORE; THIN-WALLED TUBE; CONTINUOUS SAMPLER; NO RECOVERY

- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

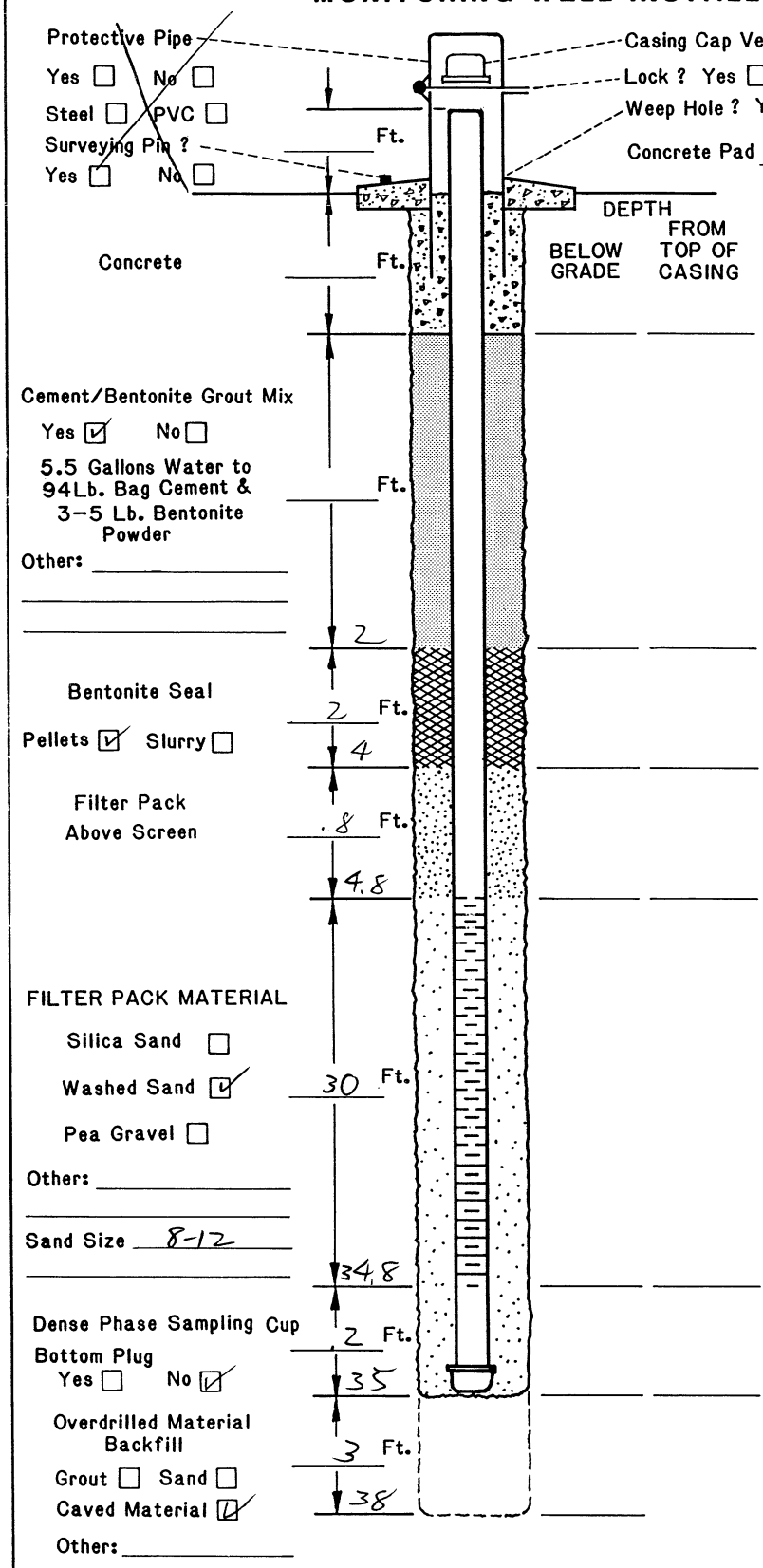
GRAPHIC LOG LEGEND

CLAY; SILT; SAND; GRAVEL; SILTY CLAY; CLAYEY SILT; DEBRIS FILL; HIGHLY ORGANIC (PEAT); SANDY CLAY; CLAYEY SAND; _____; _____

DATE DRILLED	5/22/93
PAGE	1 of 1
DRILLING METHOD	HSA
DRILLED BY	WEBER DRLG.
LOGGED BY	T. REED
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	~500' WEST OF PC-56

FLUSH MOUNT

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM



DRILLING INFORMATION:

1. Borehole Diameter= 8 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 _____ 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: .020
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 ?
   15 / 1 Minutes/Hours
3. Approximate Water Volume Removed ? 110 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 8 Ft. Date 5/22/98

Before Development _____ Ft. Date _____

After Development 9.14' Ft. Date 6/15/98

Driller/Firm ROBERTSON / WEBER DRLG. Drill Rig Type B-61 HDX Date Installed 5/22/98

Drill Crew _____ Well No. PC-59 Kerr-McGee Hydrologist T. REED

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC - LLC	LOCATION HENDERSON, NV	BORING NUMBER PC-60

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
1	BERM MATERIAL									MOBILE B-61
	SILTY SAND W/ GRAVEL BRN - RD BRN WELL GRADED DRY		SM							8" HOLE
5	▽									
	GRAVEL ZONE 7-8' MOIST									
10										
15			SM							
	SILTY SAND W/ GRAVELS BROWN TO DK BROWN WELL GRADED SAT									
20										
25										
	? ? ? ? ? T/ SANDY SILT NOT DETERMINED									
30	SANDY SILT V. LITE GRAY GRAVELLY IP V. SOFT SAT		ML							
35										T/ MUDDY CREEK 40'
40										

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL; AUGER; ROCK CORE; THIN-WALLED TUBE; CONTINUOUS SAMPLER; NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY; SILT; SAND; GRAVEL; SILTY CLAY; CLAYEY SILT; DEBRIS FILL; HIGHLY ORGANIC (PEAT); SANDY CLAY; CLAYEY SAND; _____; _____

DATE DRILLED	PAGE
5/26/98	1 of 2
DRILLING METHOD: HSA	
DRILLED BY: WEBER	
LOGGED BY: J. CRAWFORD	
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMG-LLC	LOCATION HENDERSON NV	BORING NUMBER PC-60

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
45	SILTY CLAY GREEN-GRN GRY W/ SM DARK ORANGE STRIATIONS SLI TO NON PLASTIC FIRM TO STIFF MOIST		CL			1	X	43-44	100%	TD 43' 39' ALLUVIUM
50										

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL | AUGER | ROCK CORE | THIN-WALLED TUBE | CONTINUOUS SAMPLER | NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

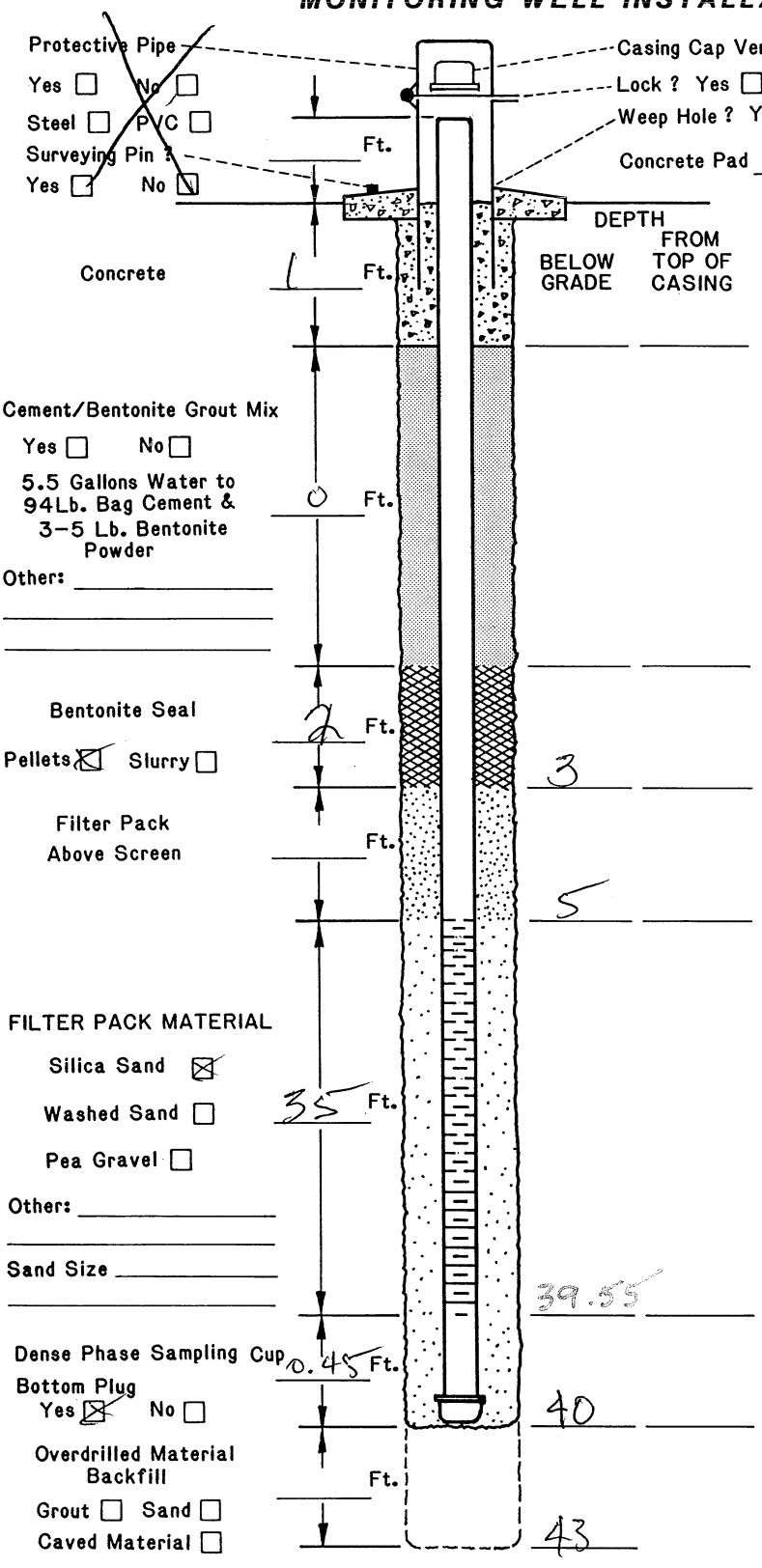
GRAPHIC LOG LEGEND

CLAY | DEBRIS FILL | SILT | HIGHLY ORGANIC (PEAT) | SAND | SANDY CLAY | GRAVEL | CLAYEY SAND | SILTY CLAY | _____ | CLAYEY SILT | _____

DATE DRILLED: 3/26/98
PAGE: 2 of 2
DRILLING METHOD: HSA
DRILLED BY: WEBER
LOGGED BY: J. CRAWFORD
EXISTING GRADE ELEVATION (FT. AMSL):
LOCATION OR GRID COORDINATES:

FLUSH MOUNT

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM



DRILLING INFORMATION:

1. Borehole Diameter= 8 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 _____ 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: .010
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 ?
   _____ / 1 Minutes/Hours
3. Approximate Water Volume Removed ? ~100 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 7 Ft. Date 5/26
Before Development _____ Ft. Date _____
After Development 7.90 Ft. Date 6/15/98

Driller/Firm WEBER Drill Rig Type MOBILE B-61 Date Installed 5/26/98

Drill Crew Lee ROBERTSON Well No. PC-60 Kerr-McGee Hydrologist J. CRAWFORD

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC - LLC	LOCATION HENDERSON NV	BORING NUMBER PC-62

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
2	BERM MATERIAL									
	GRAVELS/SAND BRN - RD BRN DRY WELL GRADED		GM							
5	COBBLES 1-8'									
	▽									
10										ALLUVIUM THICKNESS 35'
15			GM/							
			SM							
20										
25	SAND DK GY BRN V CRS SM GRAVEL SMALL SLI SILTY WELL GRADED		SM							
30										
35										T/MUDDY CREEK 37'
37										TD 38'
	SILTY CLAY-SILT GRY GRN SOFT BCMG FIRM-STIFF SLI PLASTIC		CL				X	38-39	100%	

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL; AUGER; ROCK CORE; THIN-WALLED TUBE; CONTINUOUS SAMPLER; NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

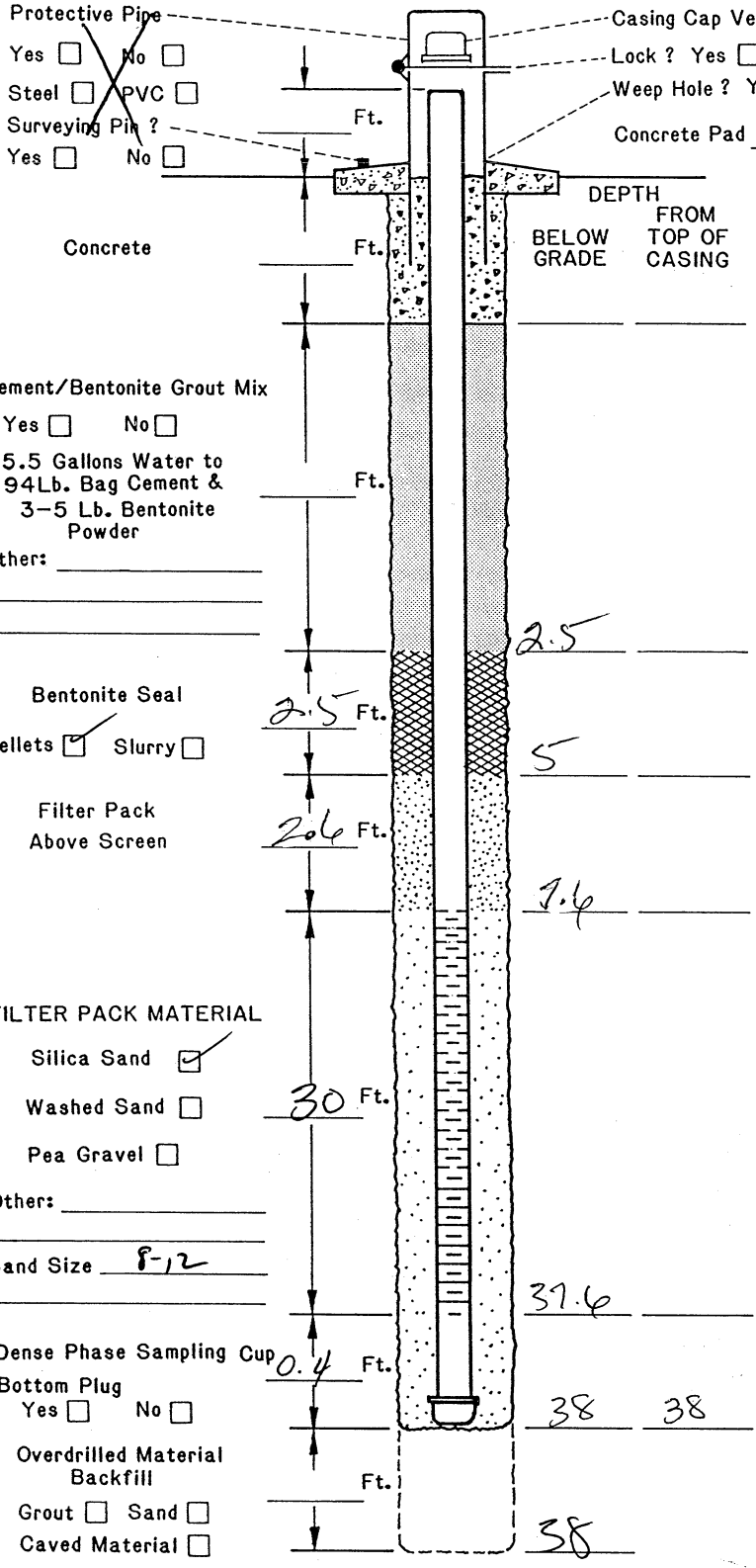
GRAPHIC LOG LEGEND

CLAY; SILT; SAND; GRAVEL; SILTY CLAY; CLAYEY SILT; DEBRIS FILL; HIGHLY ORGANIC (PEAT); SANDY CLAY; CLAYEY SAND; ____; ____

DATE DRILLED	PAGE
5/27/98	1 of 1
DRILLING METHOD: HSA	
DRILLED BY: WEBER	
LOGGED BY: J. CRAWFORD	
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

FLUSH mount

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM



DRILLING INFORMATION:

1. Borehole Diameter= 8 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 _____ 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: .010
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 ?
   _____ / 1 Minutes/Hours
3. Approximate Water Volume Removed ? ~100 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 10 Ft. Date 5-27
Before Development _____ Ft. Date _____
After Development 10.00 Ft. Date 6/15/98

Driller/Firm WEBER
Drill Rig Type B-61
Date Installed 5/27/98
Drill Crew LEE ROBERTSON
Well No. PC-62
Kerr-McGee Hydrologist J. CRAWFORD

Palm & Barrett

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCLLC	LOCATION HENDERSON, NV	BORING NUMBER PC-64

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
	ASPHALT / GRAVEL									
5	GRAVELLY SAND BROWN V CRS WELL GRADED DRY SILTY		SM/GM							
	▽									
10	GRAVELS & SAND ABD BCMG SLI CLAYEY		SM/GM							
15										T/ MUDDY CREEK 19 FT
20	CLAY SILT BUFF to LTR BRN STIFF DRY		CL				X	20-21	100%	TD 20'

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL; AUGER; ROCK CORE; THIN-WALLED TUBE; CONTINUOUS SAMPLER; NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

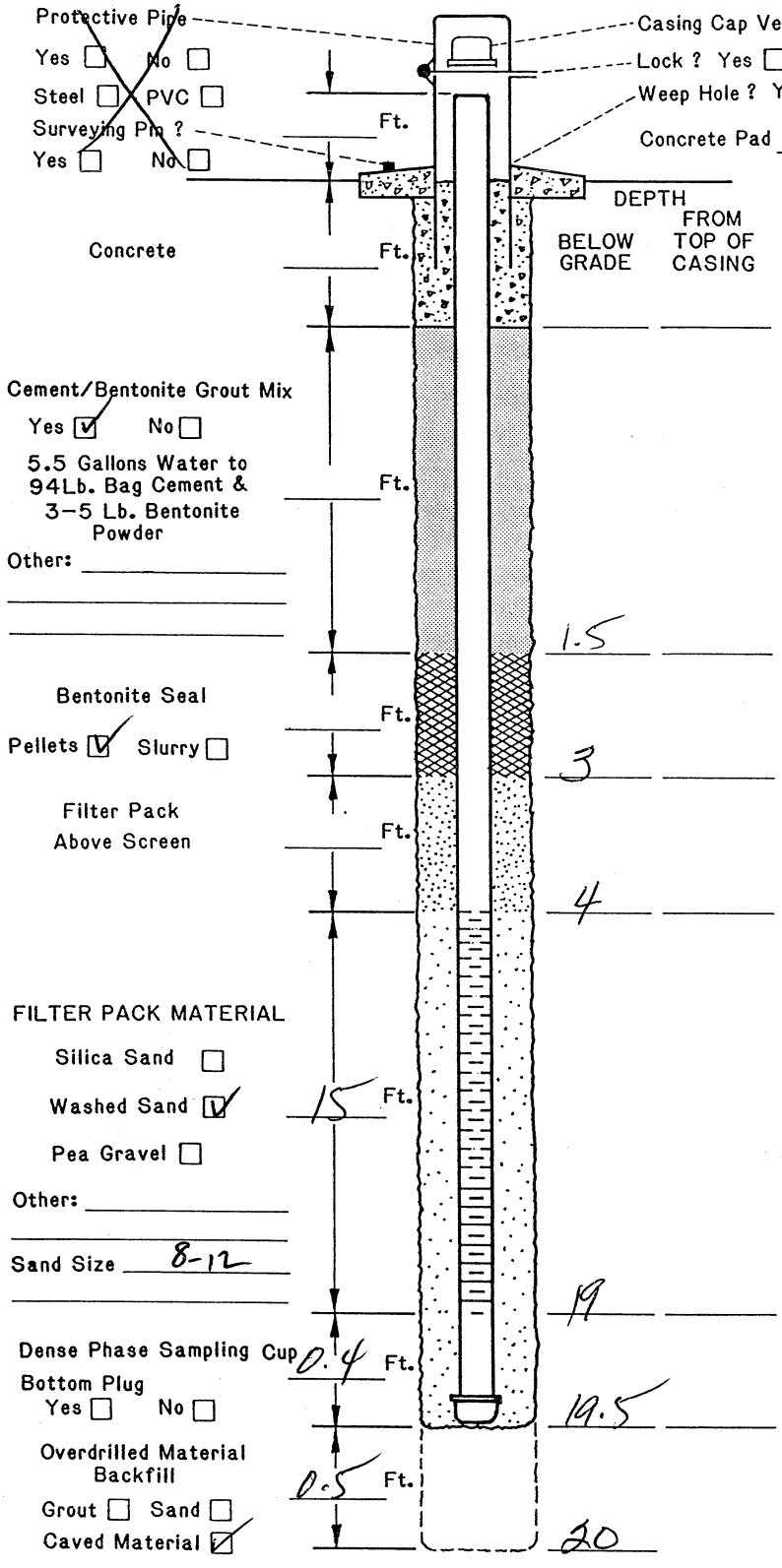
GRAPHIC LOG LEGEND

CLAY; SILT; SAND; GRAVEL; SILTY CLAY; CLAYEY SILT; DEBRIS FILL; HIGHLY ORGANIC (PEAT); SANDY CLAY; CLAYEY SAND; _____; _____

DATE DRILLED: 5/28/98
PAGE: 1 of 1
DRILLING METHOD: HSA
DRILLED BY: WEBER
LOGGED BY: J. CRAWFORD
EXISTING GRADE ELEVATION (FT. AMSL):
LOCATION OR GRID COORDINATES:

FLUSH MOUNT

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM



DRILLING INFORMATION:

1. Borehole Diameter= 8 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 _____ 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: 2
   Casing 2 Inches, Screen 2 Inches.
5. Slot Size of Screen: .020
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 ?
   _____ / 1 Minutes/Hours
3. Approximate Water Volume Removed ? 65 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 7 Ft. Date 5/28
Before Development _____ Ft. Date _____
After Development 5.9' Ft. Date 6/15/98

Driller/Firm WEBCO Drill Rig Type MOBILE B-61 Date Installed 5/28/98

Drill Crew LEE ROBERTSON Well No. PC-64 Kerr-McGee Hydrologist J. CRAWFORD

Chestnut

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC-LLC	LOCATION HENDERSON NV	BORING NUMBER PC-65

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
	ASPHALT & ROAD GRAVEL									
5	SILTY SAND REDDISH BRN to BRN V CRS GR. SM GRAVEL WELL GRADED SLI CLAYEY IN PART DRY		SM/GM							
10										
	▽									
15	SAND W/ GRAVEL AAB									T/ MUDDY CREEK 19'
20	CLAYEY SILT RD BRN STIFF DRY LAMINATED		CL			1	X	20-21	100%	
										TD 22'
										DRILL 2' EXTRA FEET DUE TO FLOWING SANDS

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED: 5/28/98

PAGE: 1 of 1

DRILLING METHOD: HSA

DRILLED BY: WEBER

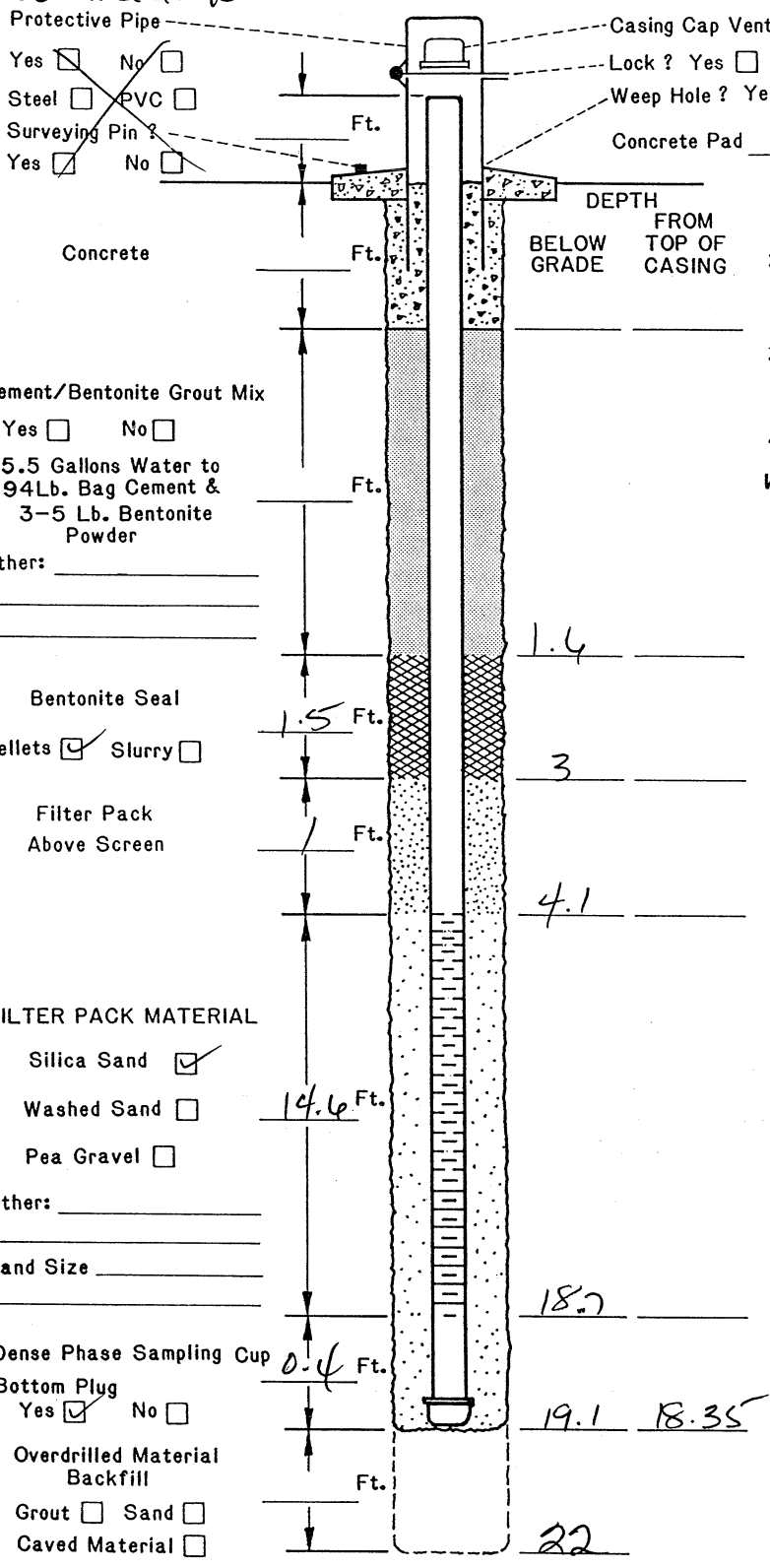
LOGGED BY: J. CRAWFORD

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

FLUSH MOUNT COMPLETION

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM



DRILLING INFORMATION:

1. Borehole Diameter= 8 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 _____ 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: .020
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 ?
   _____ / 1 Minutes/Hours
3. Approximate Water Volume Removed ? 65 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 12 Ft. Date 5/28
Before Development _____ Ft. Date _____
After Development 5.10 Ft. Date 6/15/98

Driller/Firm WEBER Drill Rig Type B-61 Date Installed 5/28/98

Drill Crew LEE ROBERTSON Well No. PC-45 Kerr-McGee Hydrologist J. CRAWFORD

PRICE & ENGEL

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC-LLC	LOCATION HENDERSON NV	BORING NUMBER PC-66

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
	ASPHALT & ROAD GRAVELS									
5	GRAVELLY SAND BRN-RED BRN V CLS SILTY WELL GRADED DRY		SM/GM							
10	GRAVELLY SAND PAR BCMG WET INC CLAY	▽								
15			SM							
20										
24.5										+/MUDDY CREEK 24.5'
25	SILT/CLAY LT BRN-TAN SOFT-FIRM NON to V SLI PLASTIC GYP XTLS		CL				X	27-28	100%	TD 27
	24.5									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL; AUGER; ROCK CORE; THIN-WALLED TUBE; CONTINUOUS SAMPLER; NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

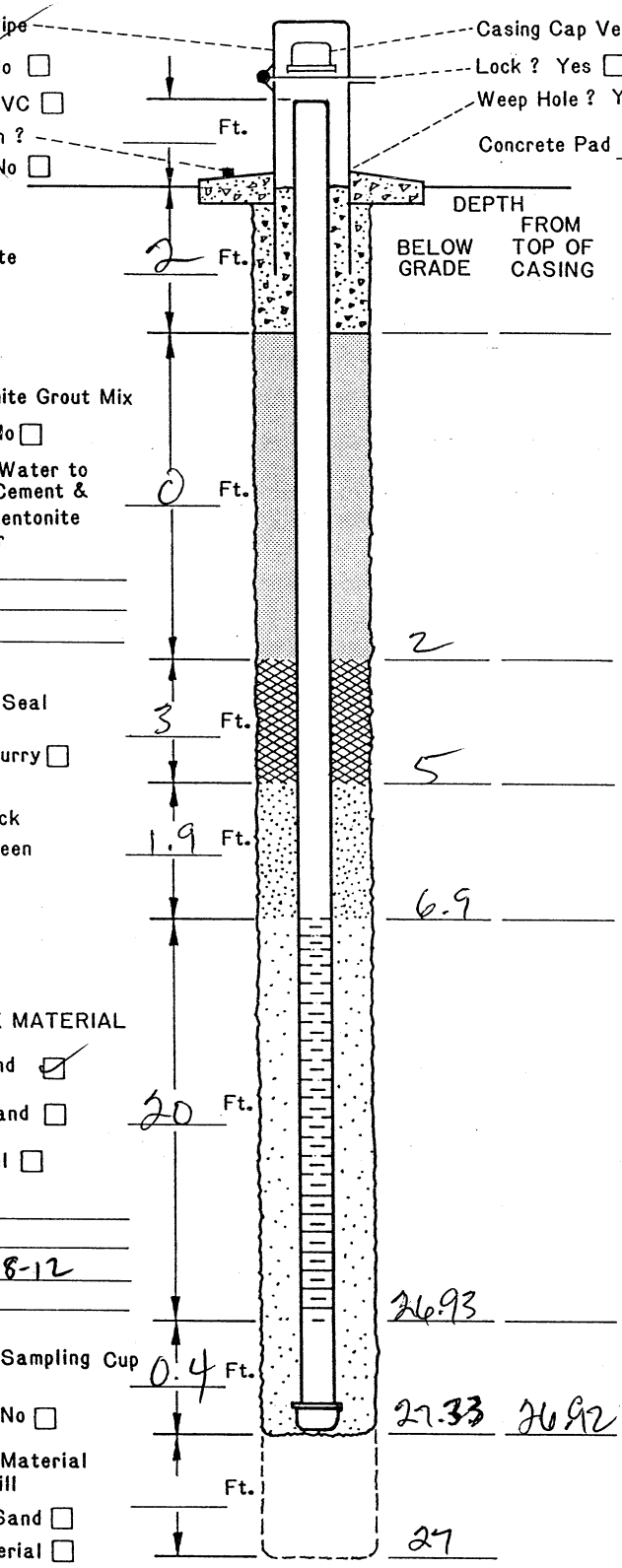
GRAPHIC LOG LEGEND

CLAY; SILT; SAND; GRAVEL; SILTY CLAY; CLAYEY SILT; DEBRIS FILL; HIGHLY ORGANIC (PEAT); SANDY CLAY; CLAYEY SAND; _____; _____

DATE DRILLED: 5/28/98
PAGE: 1 of 1
DRILLING METHOD: HSA
DRILLED BY: WEBER
LOGGED BY: J. CRAWFORD
EXISTING GRADE ELEVATION (FT. AMSL):
LOCATION OR GRID COORDINATES:

FLUSH MOUNT

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM



DRILLING INFORMATION:

1. Borehole Diameter= 8 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 _____ 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: .020
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 ?
   _____ / 1 Minutes/Hours
3. Approximate Water Volume Removed ? 25 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 10 Ft. Date 5/28/98

Before Development _____ Ft. Date _____

After Development 8.25' Ft. Date 6/15/98

Driller/Firm WEBER Drill Rig Type MOBILE B-61 Date Installed 5/28/98

Drill Crew LEE ROBERTSON Well No. PC-66 Kerr-McGee Hydrologist J. CRAWFORD

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC - LLC	LOCATION HENDERSON, NV	BORING NUMBER PC-67

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
1	ASPHALT & ROAD GRAVELS									
	SILTY SAND TO BRN CRS GRAVEL COMMON WELL GRADED DRY		SM/ GM							
5										
	▽									
10	SILTY SAND AAB INC CLAY BCMG WET									
	INTERSTITIAL GYPSUM XTLS 14-15					1	X	14-15	100%	HARD DRILLING AT 14'
15										
20	SILTY SAND BRN - LT BRN CRS - V CRS GR FEW GRAVELS SAT "SOUPY"									
25			SM							
30										32-32.6 HARD "TIGHT" DRILLING
35										
36	SILTY CLAY TO BRN - LT TAN SOFT - FIRM		CL							
						2	X	38-39	100%	
40										

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL | AUGER | ROCK CORE | THIN-WALLED TUBE | CONTINUOUS SAMPLER | NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

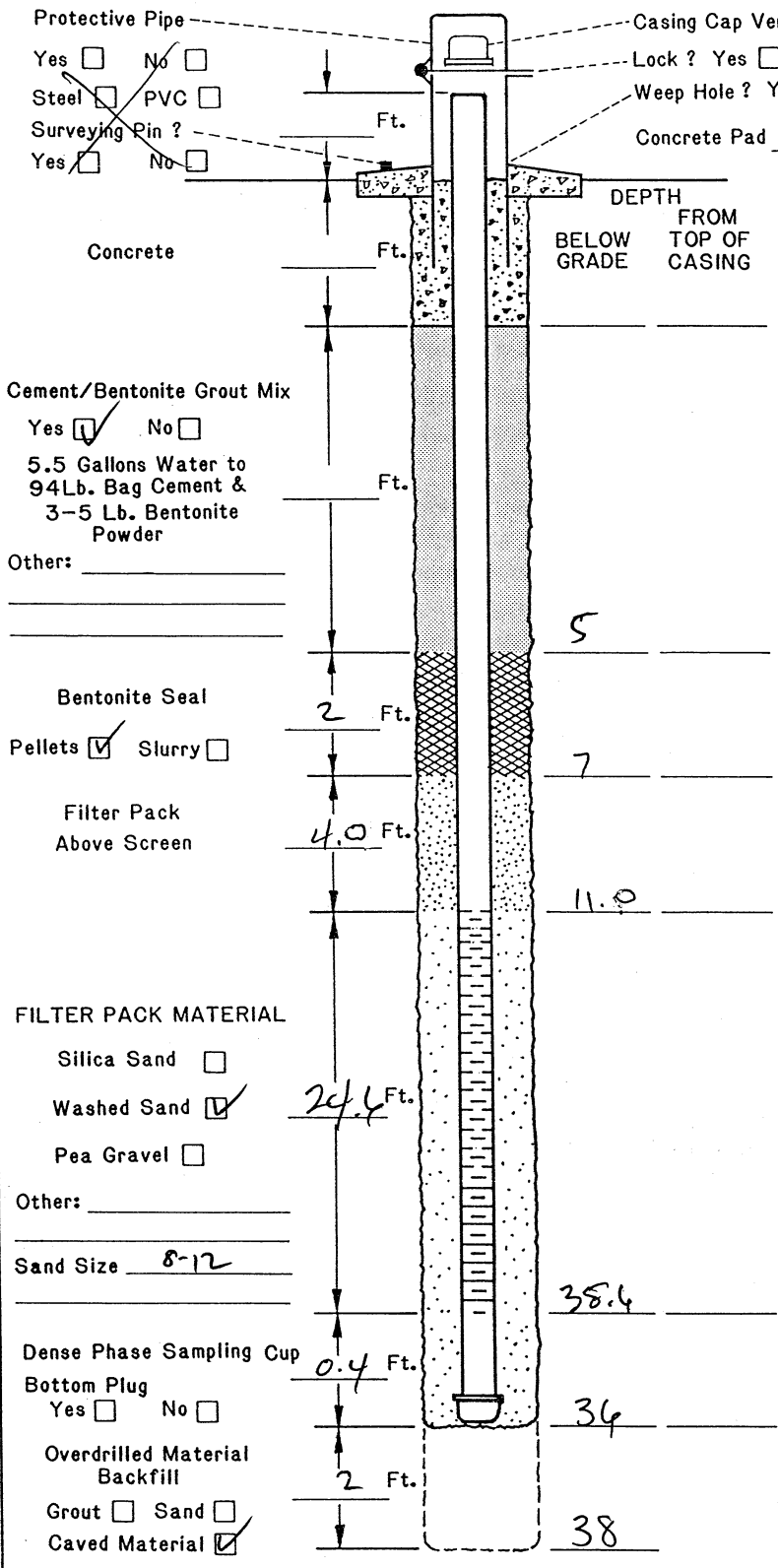
GRAPHIC LOG LEGEND

CLAY | SILT | SAND | GRAVEL | SILTY CLAY | CLAYEY SILT | DEBRIS FILL | HIGHLY ORGANIC (PEAT) | SANDY CLAY | CLAYEY SAND

DATE DRILLED: 5/29/98
PAGE: 1 of 1
DRILLING METHOD: HSA
DRILLED BY: WEBER
LOGGED BY: J. CRAWFORD
EXISTING GRADE ELEVATION (FT. AMSL):
LOCATION OR GRID COORDINATES:

FLUSH MOUNT

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM



DRILLING INFORMATION:

1. Borehole Diameter= 8 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 _____ 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: .020
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 ?
   _____ / 1 Minutes/Hours
3. Approximate Water Volume Removed ? 75 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 9 Ft. Date 5/29/98

Before Development _____ Ft. Date _____

After Development 7.62 Ft. Date 6/15/98

Driller/Firm WEBER Drill Rig Type MOBICE B-61 Date Installed 5/29/98

Drill Crew LEE ROBERTSON Well No. PC-67 Kerr-McGee Hydrologist J. CRAWFORD

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMLC-LLC	LOCATION HENDERSON NJ	BORING NUMBER PC-68

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
2	BERM MATERIAL									
5	SILTY SAND BRN-DK BRN GRAVEL COMMON WELL GRADED DRY		SM/GM							
10	GRAVELS 9-10									
	SILTY SAND FAIR AMT WET									
15										
20			SM							
25										
30	SILTY SAND W/ GRAVEL POOR RETURNS		SM							
35										
40										

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL | AUGER | ROCK CORE | THIN-WALLED TUBE | CONTINUOUS SAMPLER | NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY | SILT | SAND | GRAVEL | SILTY CLAY | CLAYEY SILT | DEBRIS FILL | HIGHLY ORGANIC (PEAT) | SANDY CLAY | CLAYEY SAND | ____ | ____

DATE DRILLED: 6/1/98
PAGE: 1 of 2
DRILLING METHOD: HSA
DRILLED BY: WEISER
LOGGED BY: J. CRAWFORD
EXISTING GRADE ELEVATION (FT. AMSL):
LOCATION OR GRID COORDINATES:

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC-LLC	LOCATION HENDERSON NV	BORING NUMBER PC-68

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
	COBBLES									
45	COBBLES		SM GM							
50										J/MUDDY CREEK 52'
	SILTY CLAY RD BRN BCMG LT GREENISH GY SOFT SCI PLASTIC TR GRAVEL		CL							
55										TD 53' DRILLED TO 55' (6/3/98) FOR WELL COMPLETION

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

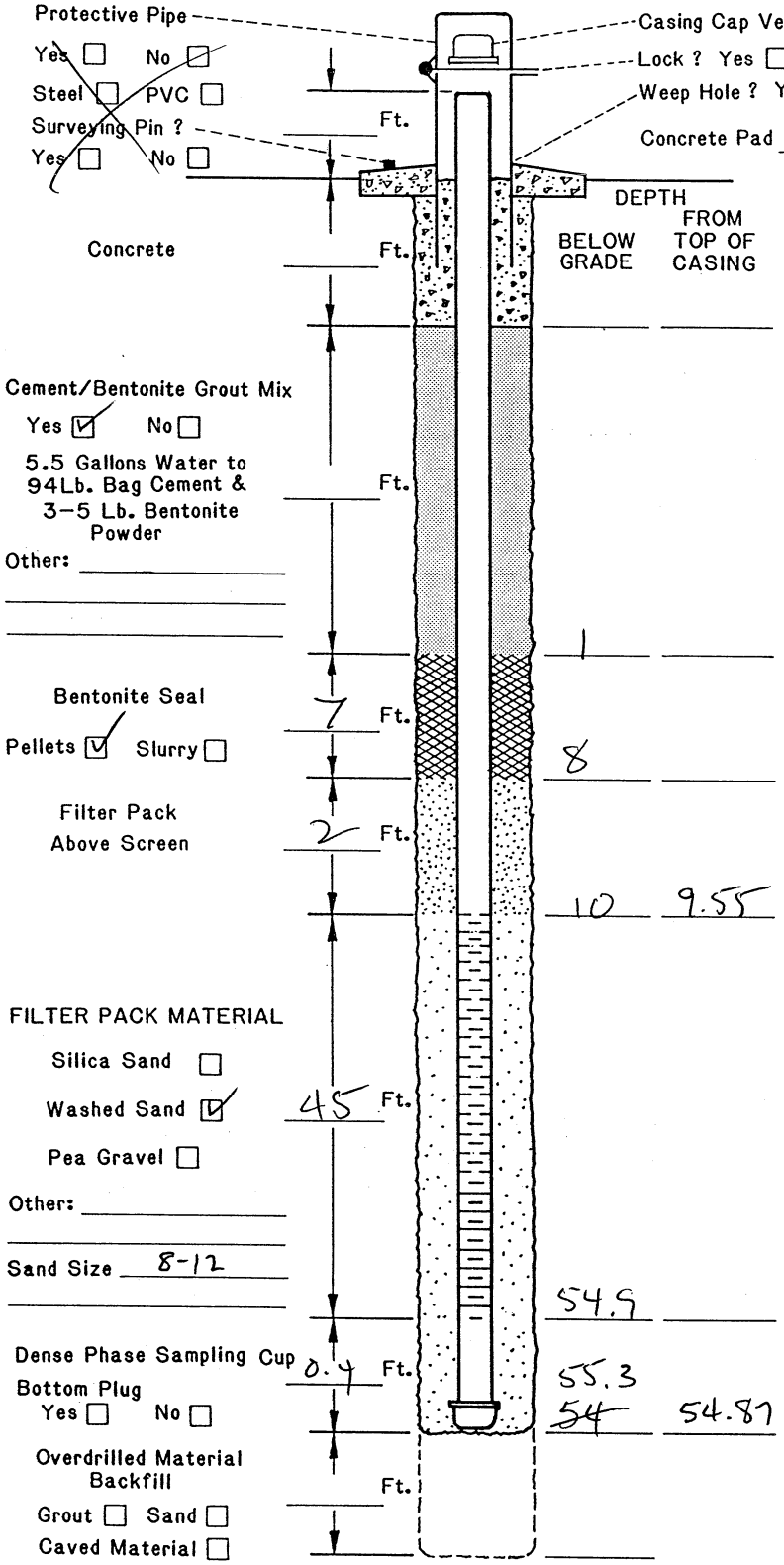
GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	PAGE
6/1/98	2 of 2
DRILLING METHOD: HSA	
DRILLED BY: WEBER	
LOGGED BY: J. CRAWFORD	
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

FLUSH MOUNT

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM



DRILLING INFORMATION:

1. Borehole Diameter= 8 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 _____ 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: .020
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 ?
   ___/1 Minutes/Hours
3. Approximate Water Volume Removed ? 105 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 11 Ft. Date 6/3/98

Before Development _____ Ft. Date _____

After Development 9.10 Ft. Date 6/15/98

Driller/Firm WEBER Drill Rig Type MOBILE B-61 Date Installed 6/3/98

Drill Crew LEE ROBERTSON Well No. PC-68 Kerr-McGee Hydrologist J. CRAWFORD

SOIL BORING LOG KM—5655-A

KERR-McGEE CORPORATION Hydrology Dept. Engineering Services	KM SUBSIDIARY Chemical	LOCATION Henderson, NV	BORING NUMBER PC-71

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER FOOT	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
5	Tan to reddish brown silty sand with variable small to medium gravel in thin layers. Alluvial Deposits		GM							
10										
15										
20	Chiefly sand and Gravel		SP					17.5-18	0.5	1055
	Hard red clay		CL							
	reddish-brown silty clay							20-21	1'	1045
25			CL					24.5-26	1.5	1055
								27-28	1'	1110
30	Reddish-brown clay, blocky, dry-to-moist Creek TD 33 Ft		CL					30-31	1'	1130
35										

EXPLANATION

- Water Table (24 Hour)
- Water Table (Time of Boring)
- PID — Photoionization Detection (ppm)
- NO. — Identifies Sample by Number
- TYPE — Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH — Depth Top and Bottom of Sample
- REC. — Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND

DATE DRILLED: 11-30-98 | PAGE: 1 of 1

DRILLING METHOD: Hollow Stem Auger

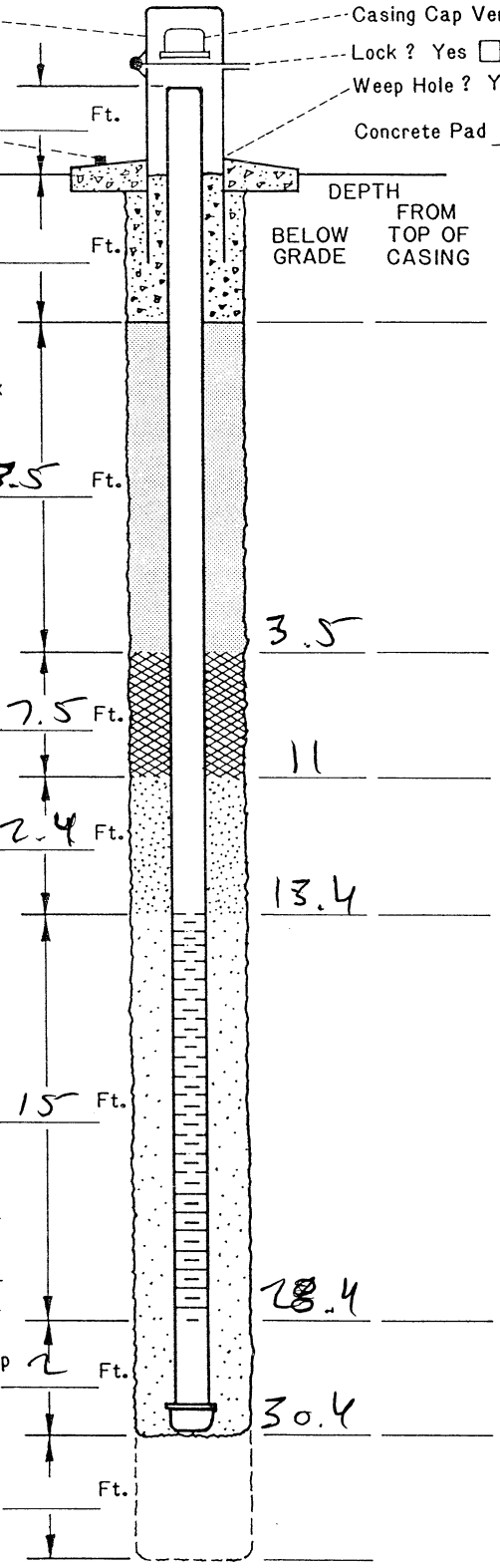
DRILLED BY: Compliance Drilling

LOGGED BY: Steve Lower

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM



Protective Pipe — Yes [X] No [ ] — Steel [X] PVC [ ]
Surveying Pin ? Yes [ ] No [ ]
Casing Cap Vent ? Yes [ ] No [ ]
Lock ? Yes [ ] No [ ]
Weep Hole ? Yes [ ] No [ ]
Concrete Pad _____ Ft. x _____ Ft. x _____ Inches

DEPTH FROM TOP OF CASING

	Ft.	BELOW GRADE	FROM TOP OF CASING
Concrete	Ft.		
Cement/Bentonite Grout Mix — Yes [X] No [ ] 5.5 Gallons Water to 94Lb. Bag Cement & 3–5 Lb. Bentonite Powder	3.5 Ft.		
Other:		3.5	
Bentonite Seal — Pellets [X] Slurry [ ]	7.5 Ft.	11	
Filter Pack Above Screen	2.4 Ft.	13.4	
FILTER PACK MATERIAL — Silica Sand [X] Washed Sand [ ] Pea Gravel [ ]	15 Ft.	28.4	
Other: _____ Sand Size _____			
Dense Phase Sampling Cup	2 Ft.	30.4	
Bottom Plug — Yes [X] No [ ]			
Overdrilled Material Backfill	Ft.		
Grout [ ] Sand [ ] Caved Material [ ]			
Other: _____			

DRILLING INFORMATION:

1. Borehole Diameter= 6.25 Inches.
2. Were Drilling Additives Used ? Yes [ ] No [X]
   Revert [ ] Bentonite [ ] Water [ ]
   Solid Auger [ ] Hollow Stem Auger [X]
3. Was Outer Steel Casing Used ? Yes [ ] No [ ]
   Depth= _____ to _____ Feet.
4. Borehole Diameter for Outer Casing _____ Inches.

WELL CONSTRUCTION INFORMATION:

1. Type of Casing: PVC [X] Galvanized [ ] Teflon [ ]
   Stainless [ ] Other _____
2. Type of Casing Joints: Screw–Couple [X] Glue–Couple [ ] Other _____
3. Type of Well Screen: PVC [X] Galvanized [ ]
   Stainless [ ] Teflon [ ] Other _____
4. Diameter of Casing and Well Screen: 0.020
   Casing 2 Inches, Screen 2 Inches.
5. Slot Size of Screen: 0.020
6. Type of Screen Perforation: Factory Slotted [X]
   Hacksaw [ ] Drilled [ ] Other _____
7. Installed Protector Pipe w/Lock: Yes [X] No [ ]

WELL DEVELOPMENT INFORMATION:

1. How was Well Developed ? Bailing [ ] Pumping [X]
   Air Surging (Air or Nitrogen) [ ] Other _____
2. Time Spent on Well Development ?
   _____ / _____ Minutes/Hours
3. Approximate Water Volume Removed ? _____ 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 _____

Driller/Firm Compliance Drilling Drill Rig Type Mobil B-59 Date Installed 11-30-98
Drill Crew Lee Robertson Well No. PC-71 Kerr-McGee Hydrologist Steve Lantz

SOIL BORING LOG KM-5655-A

KERR-McGEE CORPORATION Hydrology Dept. Engineering Services	KM SUBSIDIARY Chemical	LOCATION Henderson, NV	BORING NUMBER PC-72

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER FOOT	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
5	Tan to reddish brown silty sand with variable small to medium gravel Alluvial Sequence		GM							
10										
15										
20										
25							X	25-25	0.5	1515
30	Sequence of caliche and gray coarse sand		SP							
35	Reddish-brown clay, firm, blocky - muddy Creek		CL				X	35-35	0.5	1600
							X	35-36	1'	0750
							X	37-38	1'	0810
40	TD 38 ft									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	PAGE
12-1-98	1 of 1

DRILLING METHOD: Hollow Stem Auger

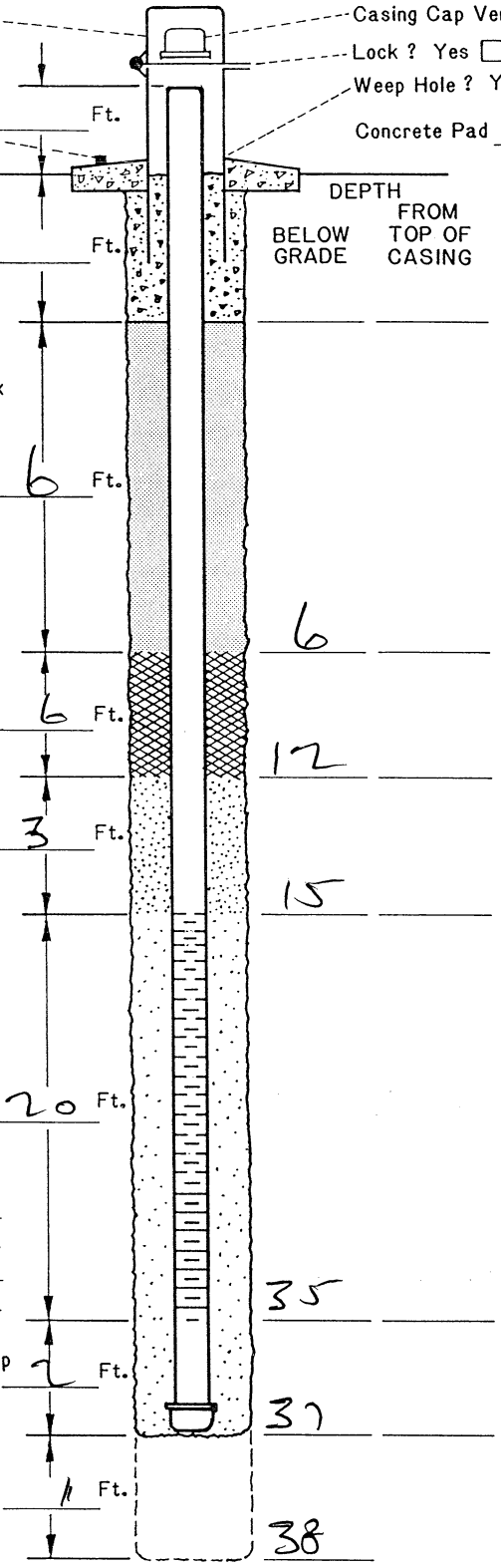
DRILLED BY: Compliance Drilling

LOGGED BY: Steve Lower

EXISTING GRADE ELEVATION (FT AMSL)

LOCATION OR GRID COORDINATES

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM



Protective Pipe
Yes [X] No [ ]
Steel [X] PVC [ ]
Surveying Pin ?
Yes [ ] No [ ]

Casing Cap Vent ? Yes [ ] No [ ]
Lock ? Yes [ ] No [ ]
Weep Hole ? Yes [ ] No [ ]
Concrete Pad _____ Ft. x _____ Ft. x _____ Inches

Ft.

Concrete Ft.

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

Bentonite Seal
6 Ft.
Pellets [X] Slurry [ ]

Filter Pack Above Screen
3 Ft.

FILTER PACK MATERIAL
Silica Sand [X]
Washed Sand [ ]
Pea Gravel [ ]
20 Ft.
Other: _____
Sand Size _____

Dense Phase Sampling Cup
2 Ft.
Bottom Plug
Yes [X] No [ ]

Overdrilled Material Backfill
1 Ft.
Grout [ ] Sand [X]
Caved Material [ ]
Other: _____

DRILLING INFORMATION:

1. Borehole Diameter= 6.25 Inches.
2. Were Drilling Additives Used ? Yes [ ] No [X]
   Revert [ ] Bentonite [ ] Water [ ]
   Solid Auger [ ] Hollow Stem Auger [X]
3. Was Outer Steel Casing Used ? Yes [ ] No [X]
   Depth= _____ to _____ Feet.
4. Borehole Diameter for Outer Casing _____ Inches.

WELL CONSTRUCTION INFORMATION:

1. Type of Casing: PVC [X] Galvanized [ ] Teflon [ ]
   Stainless [ ] Other _____
2. Type of Casing Joints: Screw-Couple [X] Glue-Couple [ ] Other _____
3. Type of Well Screen: PVC [X] Galvanized [ ]
   Stainless [ ] Teflon [ ] Other _____
4. Diameter of Casing and Well Screen:
   Casing 2 Inches, Screen 2 Inches.
5. Slot Size of Screen: 0.020
6. Type of Screen Perforation: Factory Slotted [X]
   Hacksaw [ ] Drilled [ ] Other _____
7. Installed Protector Pipe w/Lock: Yes [X] No [ ]

WELL DEVELOPMENT INFORMATION:

1. How was Well Developed ? Bailing [ ] Pumping [X]
   Air Surging (Air or Nitrogen) [ ] Other _____
2. Time Spent on Well Development ?
   _____/_____ Minutes/Hours
3. Approximate Water Volume Removed ? _____ 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 _____

Driller/Firm Compliance Drilling Drill Rig Type Mobile B-59 Date Installed 12-1-98
Drill Crew Lee Robertson Well No. PC-72 Kerr-McGee Hydrologist Steve Lower

SOIL BORING LOG KM—5655-A

KERR-McGEE CORPORATION Hydrology Dept. Engineering Services	KM SUBSIDIARY Chemical	LOCATION Henderson, NV	BORING NUMBER PC-73

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER FOOT	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0–30	Tan to reddish brown silty sand with variable small to medium gravel in thin layers		GM							
30–40	Gray silty sand with small gravel		GM							

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED: 12-1-98

PAGE: 1 of 2

DRILLING METHOD: Hollow Stem Auger

DRILLED BY: Cascade Drilling

LOGGED BY: Dave Lowry

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

SOIL BORING LOG KM—5655-A

KERR-McGEE CORPORATION Hydrology Dept. Engineering Services	KM SUBSIDIARY Chemical	LOCATION Henderson, NV	BORING NUMBER PC-73

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER FOOT	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
	Gray silty sand with small gravel		GM							
45	Reddish-brown Firm, blocky clay Muddy Creek		CL				X	43.5-45	0.5	1145
							X	47-48	1'	1210
50	TD 48 Ft									

EXPLANATION

- Water Table (24 Hour)
- Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	PAGE
12-1-98	2 of 2

DRILLING METHOD: Hollow Stem Auger

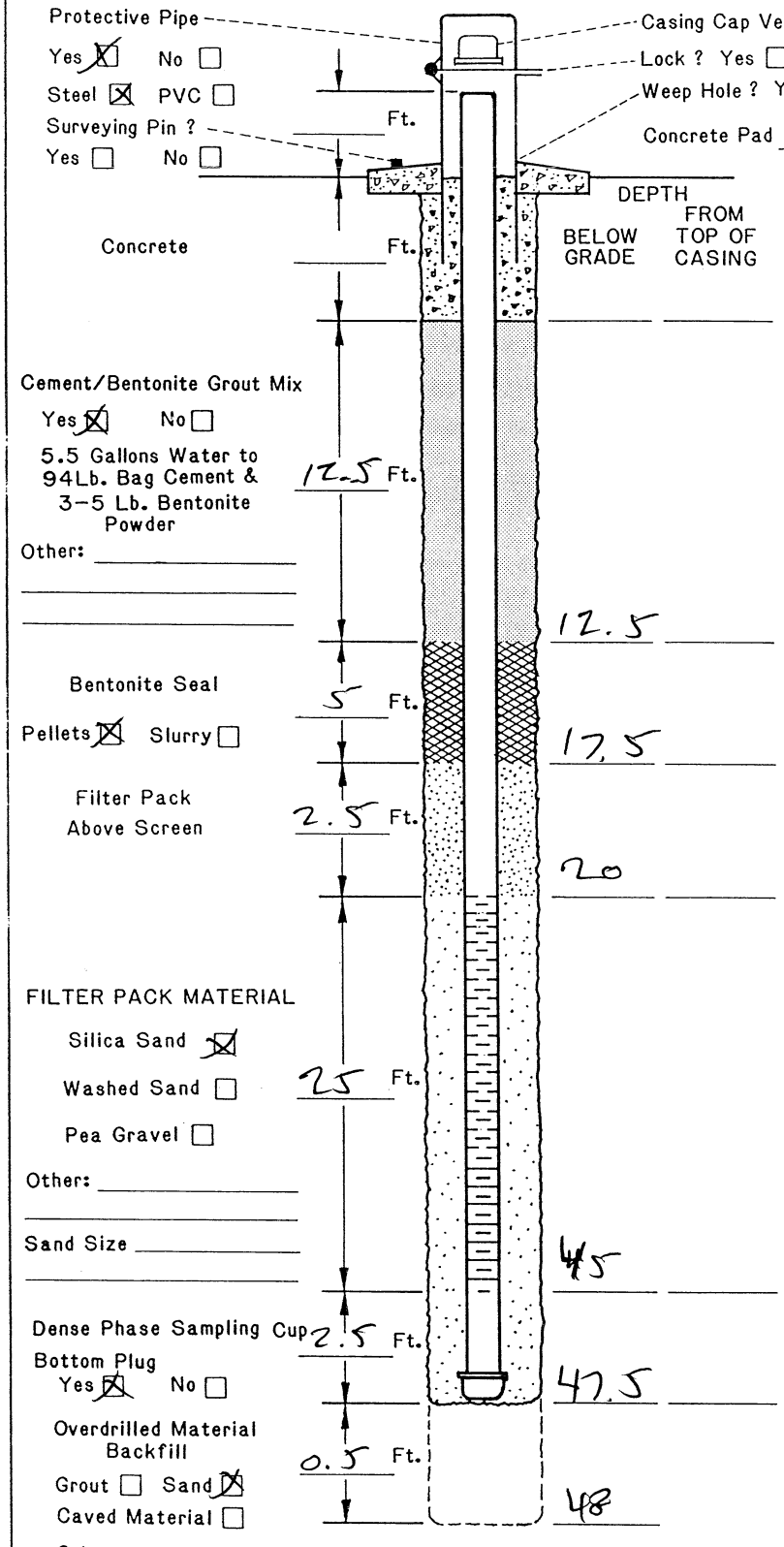
DRILLED BY: Compliance Drilling

LOGGED BY: Steve Lower

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM



DRILLING INFORMATION:

1. Borehole Diameter= 6.25 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 _____ 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: 0.020
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 ?
   _____/_____ Minutes/Hours
3. Approximate Water Volume Removed ? _____ 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 _____

Driller/Firm Compliance Drilling Drill Rig Type Mobile B-59 Date Installed 12-1-93
Drill Crew Lee Robertson Well No. PC-73 Kerr-McGee Hydrologist Steve Lower

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION Henderson NV	BORING NUMBER PC 74

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
5	0-8 GRAVEL w/ silty sd, yell orange. 30% gravel + boulders to 2' diam, volcanics 60% vc-vf SA sd 10% silt		GW							
10	8-15 silty SAND w/minor gravel. Inc in silt to 25%, gry brn. sd is vf-vc, SA-A. Gravel up to 2"		SM							damp @ 7' @ 12.45' ▼ 4-29-00
15	15-21 sdy GRAVEL w/minor silt. gry brn volc grav. to 2" w/ sd vc-f SA-A matrix. 10-15% silt		GW-GM							▽ WTR @ 16' (Perched) 4-26-00
20	21-24 cly SAND, gry grn, sd f-vc w/ com (40%) clay		SC							only damp @ 21' ▽ WTR @ 24' 4-26-00
25	24-51 Pea Gravel w/ vc-f sd matrix. grn gry. St. silty 25% sd 70% pea gravel 27-28.5 w/ com cobbles/ boulders		GW							
30										
35	37-48 boulder zones (thin) scattered throughout									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL · AUGER · ROCK CORE · THIN-WALLED TUBE · CONTINUOUS SAMPLER · NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY · SILT · SAND · GRAVEL · SILTY CLAY · CLAYEY SILT · DEBRIS FILL · HIGHLY ORGANIC (PEAT) · SANDY CLAY · CLAYEY SAND

DATE DRILLED	PAGE
4-26-00	1 of 2

DRILLING METHOD: HSA

DRILLED BY: Compliance

LOGGED BY: E KRISH

EXISTING GRADE ELEVATION (FT. AMSL):

LOCATION OR GRID COORDINATES:

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION Henderson NV	BORING NUMBER PC 74

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
45			GW							SCREENED 40'-50' WTR SMPL 4-28-00 PH 7.3 TDS 7100
51	51-56 SAND, m-vc, SA-SR, grn gry, hard. Sl. silty (10%). w/ 10% granules		SW							
56	56-70 silty sdy CLAY, grn gry & red brn, mottled. Calcareous, sticky, drills slow. w/ 5-15% vf-mg sand in matrix. Contains 10% c-vc-gran sized caliche nodules dissem. throughout		CL-ML							Muddy Creek @ 56'
70	TD 70'									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	PAGE
4-26-00	2 of 2

DRILLING METHOD: HSA

DRILLED BY: Compliance

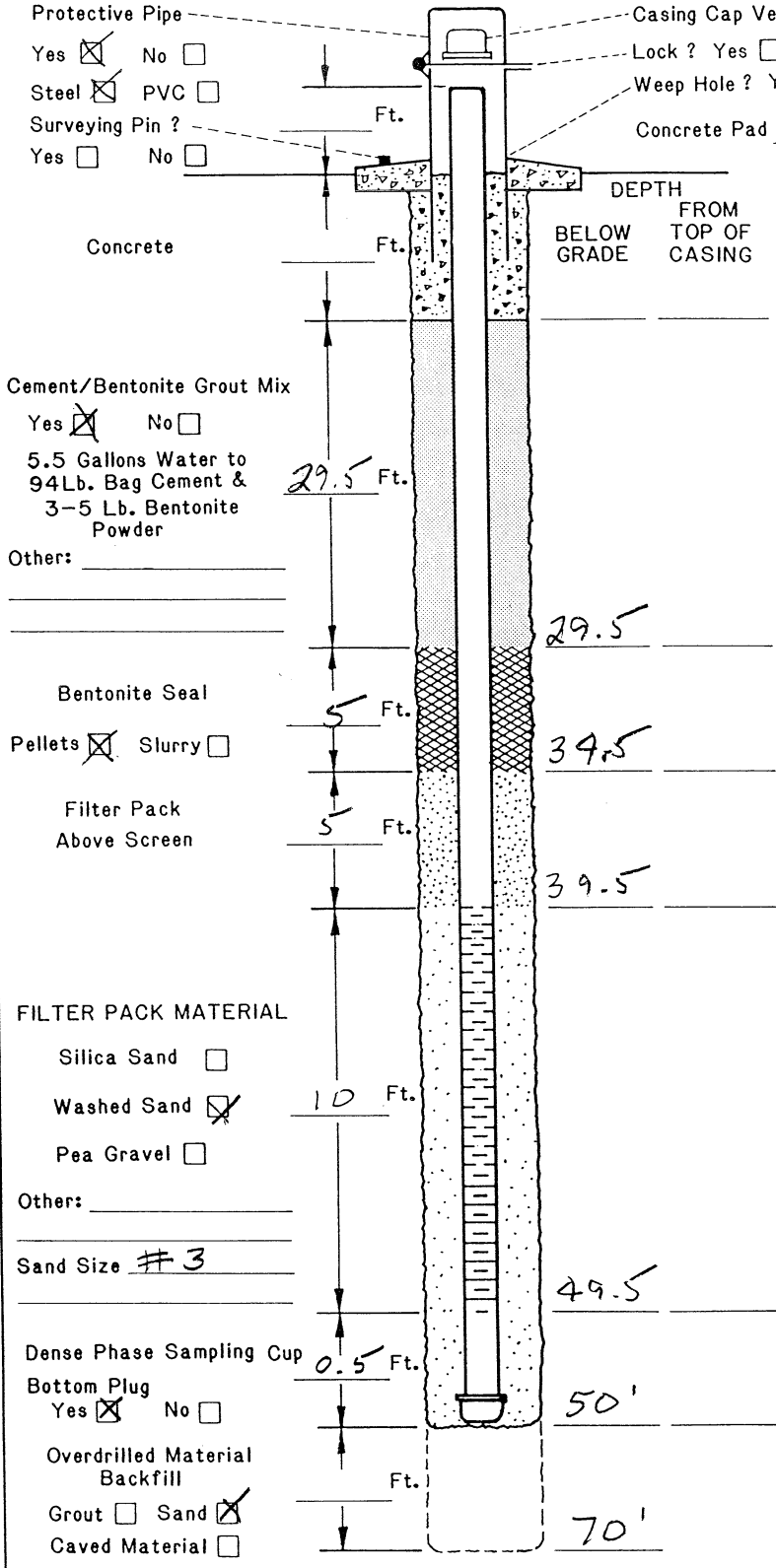
LOGGED BY: E KRISH

EXISTING GRADE ELEVATION (FT. AMSL):

LOCATION OR GRID COORDINATES:

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM

FLUSH MOUNT



DRILLING INFORMATION:

1. Borehole Diameter= 10 1/2 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 ____ 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: 0.02
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 ?
   ____ / 60 Minutes / Hours
3. Approximate Water Volume Removed ? ____ 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 24 Ft. Date 4-26-00
Before Development 12.45 Ft. Date 4-29-00
After Development 13.41' Ft. Date 5-11-00

Driller/Firm Compliance Drill Rig Type Mobile 53 Date Installed 4-26-00

Drill Crew Wells, Well No. PC 74 Kerr-McGee Hydrologist Ed Krish

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION Henderson, NV	BORING NUMBER PC 76

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
5	PC 76 located 10' SW of PC75 (20' SW of PC74)									SCREEN SET 15'-20'
10	See log of PC74 for lithology									▽ 4-28-00 ▼ 4-29-00 @16.28'
15										WTR SMPL 4-30-00 PH 7.2 cond. 8600
20	TD 22'									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	PAGE
4-28-00	1 of 1

DRILLING METHOD: HSA

DRILLED BY: Compliance

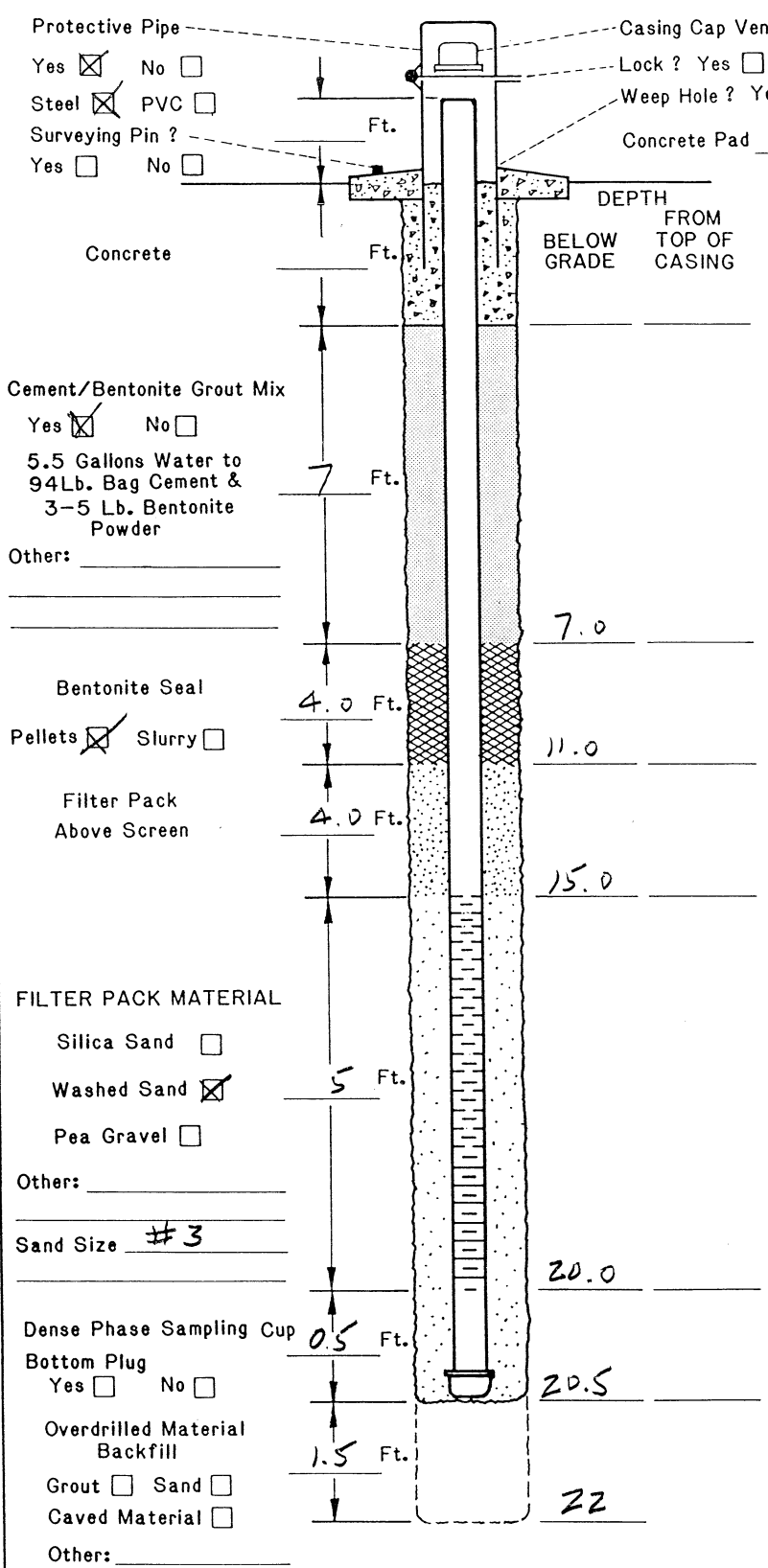
LOGGED BY: Ed Krish

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM

FLUSH MOUNT



DRILLING INFORMATION:

1. Borehole Diameter= 10 1/2 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 8 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:
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 ?
   ____ / 60 Minutes/Hours
3. Approximate Water Volume Removed ? ____ 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 16' Ft. Date 4-28-00
Before Development 16.28' Ft. Date 4-29-00
After Development 13.60' Ft. Date 5-11-00

Driller/Firm Compliance Drill Rig Type Mobile 53 Date Installed 4-28-00
Drill Crew Wells Well No. PC 76 Kerr-McGee Hydrologist Ed Krish

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON NV	BORING NUMBER PC 77

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
5	0-11 sl. silty SAND, vf-fg, SA-SR, brown, 10-15% silt below 6' silt inc. to 20-25% w/ tr vc volc grains		SW SM						6.53'	damp @ 2' moist @ 6' 4-30-00 pH 7.2 cond. 5500
11 15 20	11-21 silty gravelly SAND, brn, vf-m, SA-SR, 30% silty matrix. 20% volc + caliche granules + pebbles to 1"		SM-GM							▼17.18' 5-3-00 ▽@19' 4-29-00
25 30	21-34 gravelly SAND, vf-vc, brn gry, sl. silty 10-20%, SR-SA volc and caliche 22-24 v. hard calichified gravel 29-34 dec in gravel. to 10%. Mostly vf-vc sand		GW SW							WTR SMPL 5-2-00 pH 7.8 cond.: 6800
35	34-40 sdy SILT, brn, 30-40% vfg, SA, sand contains 10-15% matrix supported volc granules		ML							

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND

DATE DRILLED	PAGE
4/29-5/1/00	1 of 2
DRILLING METHOD: HSA	
DRILLED BY: Compliance	
LOGGED BY: Ed Krish	
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON, NV	BORING NUMBER PC 77

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
45	40-44 silty gravelly SAND, brn, f-vc w/ 30-35% gran. and pebbles of volc and caliche & minor ls. 44-45 v. hard caliched GRAVEL (volc & ls.) TD 45 (too hard to drill)		SM-GM							

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED: 4/29-5/1/00

PAGE: 2 of 2

DRILLING METHOD: HSA

DRILLED BY: COMPLIANCE

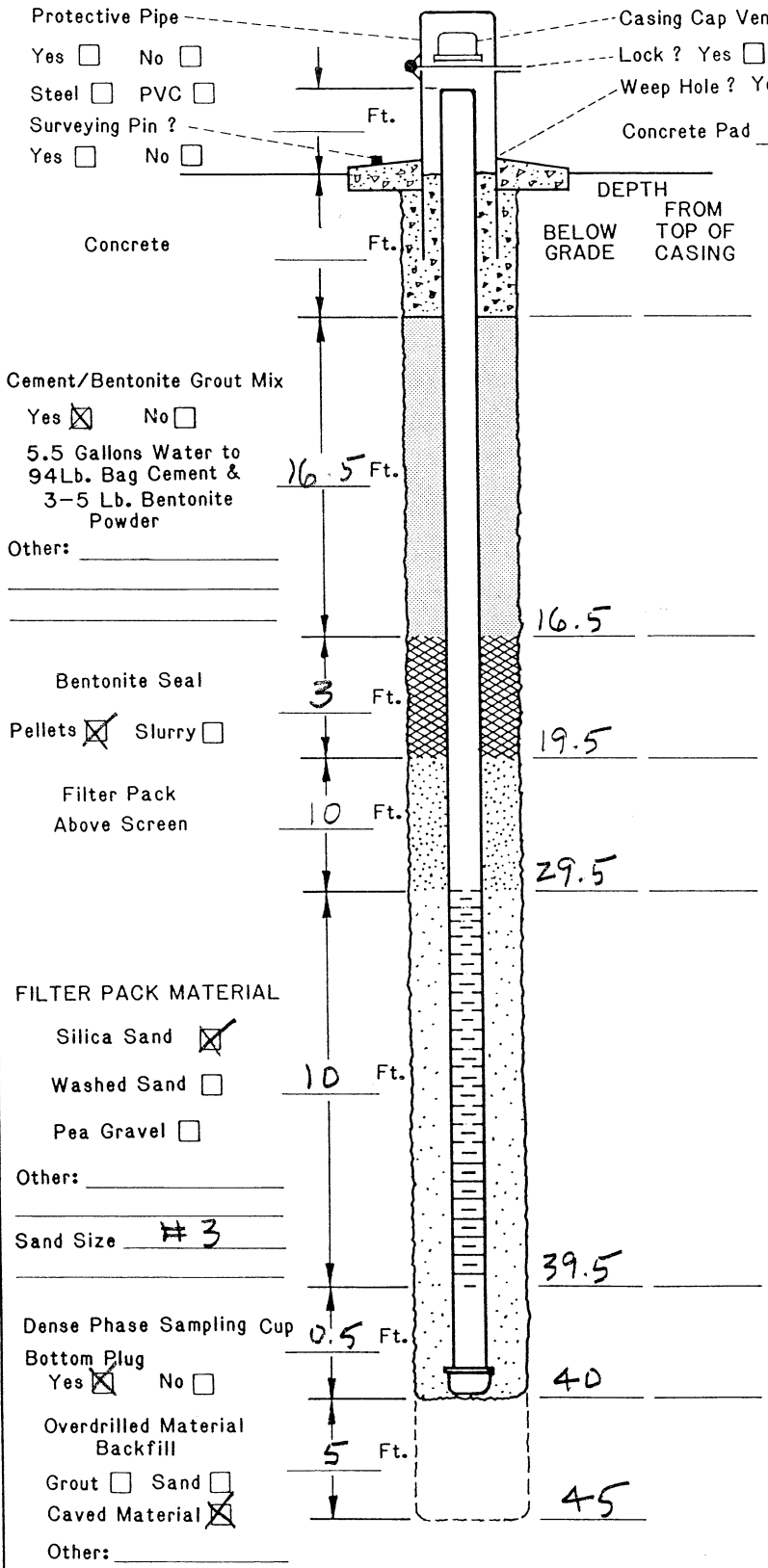
LOGGED BY: Ed KRISH

EXISTING GRADE ELEVATION (FT AMSL)

LOCATION OR GRID COORDINATES

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM

FLUSH MOUNT



DRILLING INFORMATION:

1. Borehole Diameter= 10 1/2 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 ____ 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: 0.02
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 ?
   ____ / 60 (Minutes) Hours
3. Approximate Water Volume Removed ? ____ 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 19' Ft. Date 4-29-00
Before Development 6.53' Ft. Date 4-30-00
After Development 7.27' Ft. Date 5-11-00

Driller/Firm Compliance Drill Rig Type Mobile B53 Date Installed 5-1-00
Drill Crew Wells Well No. PC 77 Kerr-McGee Hydrologist ED KRISH

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON NV	BORING NUMBER PC 78

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
5										▼ 6.95' 5-3-00 pH 7.5 TDS 4800
10	HOLE LOCATED 10' SOUTH OF PC 77. See PC 77 for lith log									
15										
20										▽ @19' 5-2-00
22	TD 22'									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL; AUGER; ROCK CORE; THIN-WALLED TUBE; CONTINUOUS SAMPLER; NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY; SILT; SAND; GRAVEL; SILTY CLAY; CLAYEY SILT; DEBRIS FILL; HIGHLY ORGANIC (PEAT); SANDY CLAY; CLAYEY SAND; _____; _____

DATE DRILLED	PAGE
5-2-00	1 of 1

DRILLING METHOD: HSA

DRILLED BY: COMPLIANCE

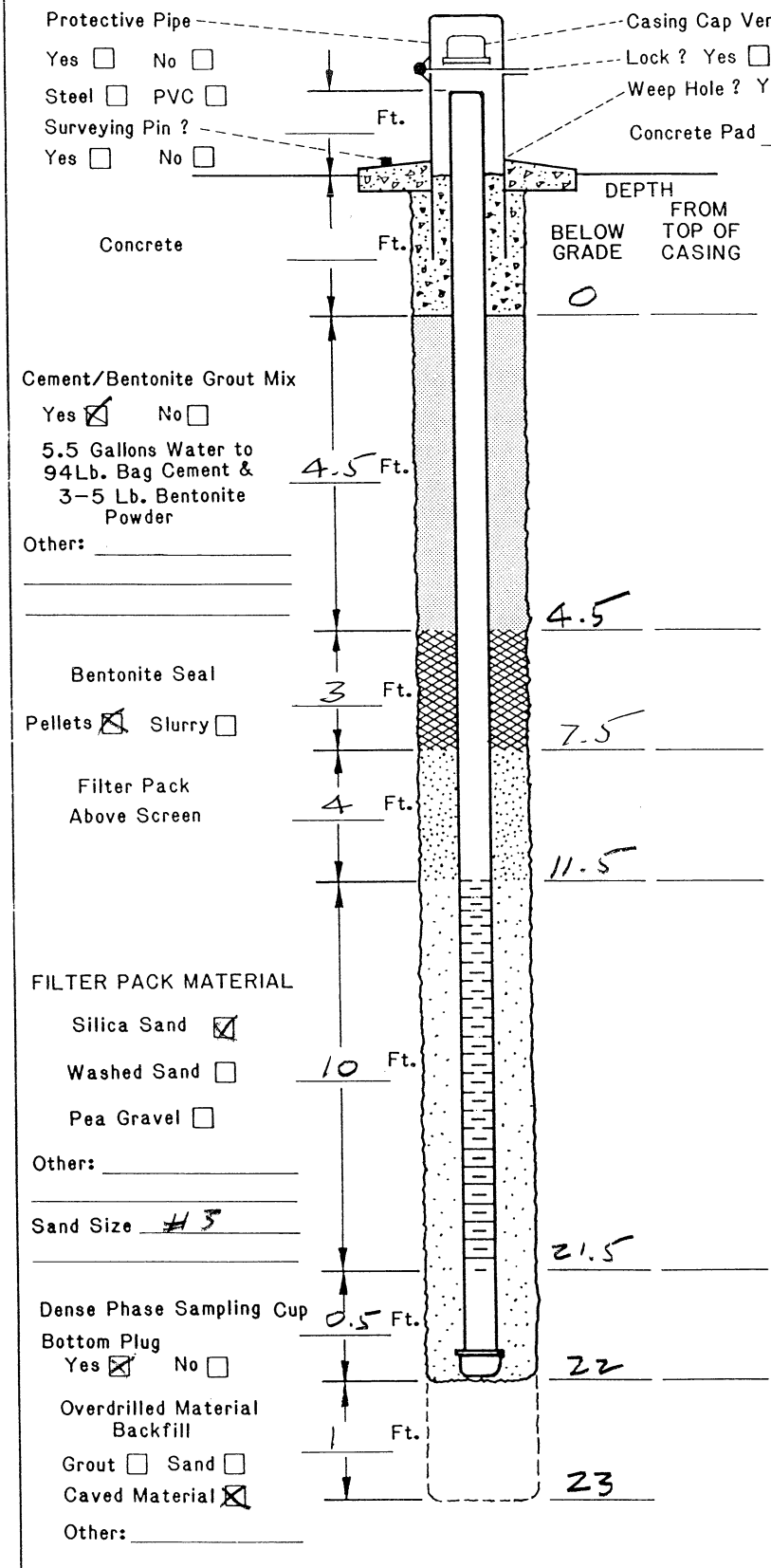
LOGGED BY: ED KRISH

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM

FLUSH MOUNT



DRILLING INFORMATION:

1. Borehole Diameter= 7 1/2 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 _____ 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: 0.02
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 ?
   _____ / 60 Minutes/Hours
3. Approximate Water Volume Removed ? _____ 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 19' Ft. Date 5-2-00
Before Development 6.95 Ft. Date 5-3-00
After Development 6.86 Ft. Date 5-11-00

Driller/Firm COMPLIANCE Drill Rig Type MOBILE B-59 Date Installed 5-2-00

Drill Crew WELLS Well No. PC 78 Kerr-McGee Hydrologist ED KRISH

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON, NV	BORING NUMBER PC 79

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	0-6 silty SAND brn, 20-30% silt in vf-vc sd. Contains 5-10% dissem pea gravel		SM							
5										damp @ 5'
	6-39 silty gravelly SAND brn, 20-30% silt in vf-vc sd w/ 20-30% volc granules and minor pea gravel, SA-SR									
10										▽ @ 12'
	7-12 50% silt									
15	15-30 locally com thin caliche cemented zones		SM-GM							
20										
25										
30										
35	36-38 caliche frac gravel zone									
39	39-42 gravelly SILT,		ML-GM							

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL · AUGER · ROCK CORE · THIN-WALLED TUBE · CONTINUOUS SAMPLER · NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY · SILT · SAND · GRAVEL · SILTY CLAY · CLAYEY SILT · DEBRIS FILL · HIGHLY ORGANIC (PEAT) · SANDY CLAY · CLAYEY SAND

DATE DRILLED	PAGE
5-2-00	1 of 2
DRILLING METHOD: HSA	
DRILLED BY: COMPLIANCE	
LOGGED BY: ED KRISH	
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON, NV	BORING NUMBER PC 79

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
42	grn gray, sticky, 10-20% dissem matrix supported pea gravel (to 1")		ML-GM							
45	42-45 silty gravelly SAND, as above		SM-GM							
	45-58 silty sdy CLAY, grn gry, dk gry and lt tan. (49-50) Calichified zone		CL							MC @ 45
55										
60	58-73 sdy SILT, cly SILT pale brn w/ minor grn gry. 10% vf-mg, SR-SA sand in matrix. Minor gypsum xtals throughout		ML-CL							
65	59-60 hard, calichified zone									
70	66-73 hard, calichified zone									
	TD 73'									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

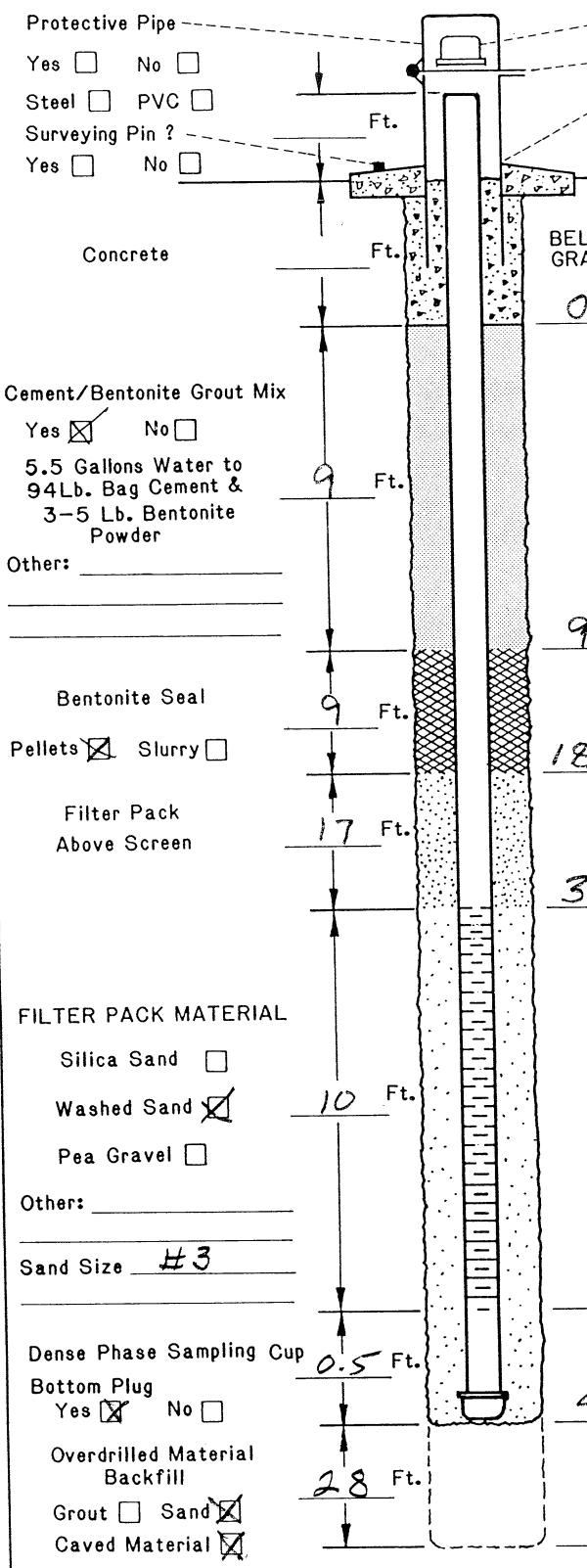
GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND

DATE DRILLED	5-2-00
PAGE	2 of 2
DRILLING METHOD	HSA
DRILLED BY	COMPLIANCE
LOGGED BY	ED KRISH
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM

FLUSH MOUNT



DRILLING INFORMATION:

1. Borehole Diameter= 8 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 _____ 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: 0.02"
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 ?
   _____ / 60 Minutes/Hours
3. Approximate Water Volume Removed ? _____ 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 12' Ft. Date 5-2-00

Before Development 7.05' Ft. Date 5-11-00

After Development _____ Ft. Date _____

Driller/Firm COMPLIANCE Drill Rig Type MOBILE B59 Date Installed 5-3-00

Drill Crew WELLS Well No. PC 79 Kerr-McGee Hydrologist ED KRISH

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON, NV	BORING NUMBER PC 80

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
5	PC 80 located 10' EAST OF PC 79. SEE LITH LOG OF PC 79 for lithology									▽ 12' 5-3-00
10										
15										
20										
25										
30										
32	TD 32'									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL · AUGER · ROCK CORE · THIN-WALLED TUBE · CONTINUOUS SAMPLER · NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY · SILT · SAND · GRAVEL · SILTY CLAY · CLAYEY SILT · DEBRIS FILL · HIGHLY ORGANIC (PEAT) · SANDY CLAY · CLAYEY SAND

DATE DRILLED	PAGE
5-3-00	1 of 1

DRILLING METHOD: HSA

DRILLED BY: COMPLIANCE

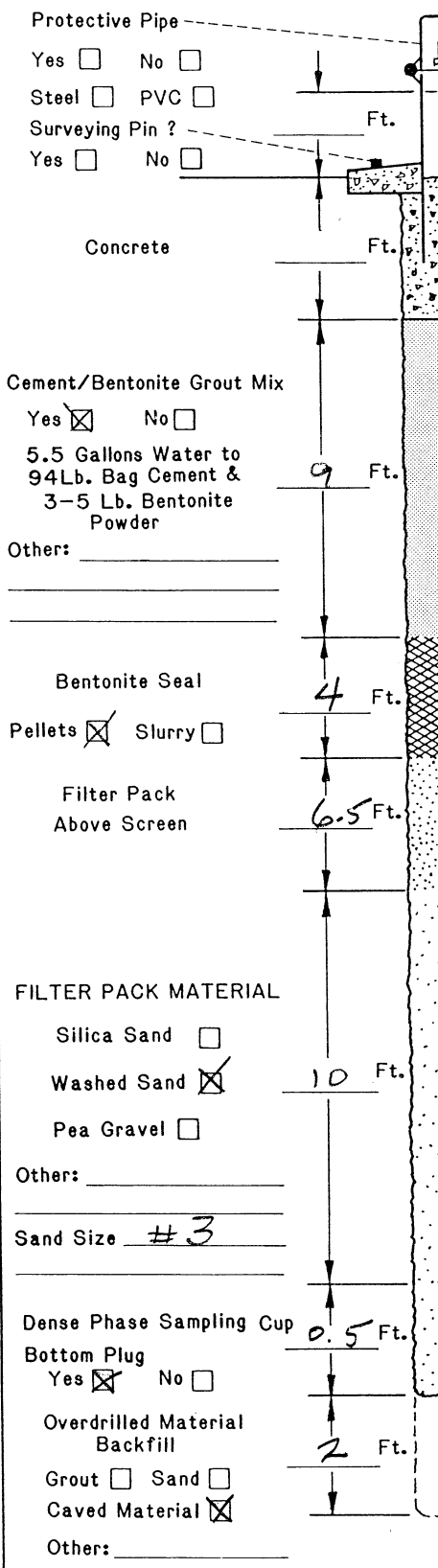
LOGGED BY: ED KRISH

EXISTING GRADE ELEVATION (FT AMSL)

LOCATION OR GRID COORDINATES

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM

FLUSH MOUNT



DRILLING INFORMATION:

1. Borehole Diameter= 8 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 ____ 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: 0.02
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 ?
   ____ / 60 Minutes/Hours
3. Approximate Water Volume Removed ? ____ 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 12 Ft. Date 5-3-00
Before Development 7.15' Ft. Date 5-11-00
After Development ____ Ft. Date ____

Driller/Firm COMPLIANCE Drill Rig Type Mobile B-59 Date Installed 5-3-00
Drill Crew WELLS Well No. PC80 Kerr-McGee Hydrologist ED KRISH

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON, NV	BORING NUMBER PC 81

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
5	PC 81 located 10' EAST of PC 80. See Log of PC 79 for lithology									▽ 12' 5-3-00
10										
15										
18	TD 18'									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL; AUGER; ROCK CORE; THIN-WALLED TUBE; CONTINUOUS SAMPLER; NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY; SILT; SAND; GRAVEL; SILTY CLAY; CLAYEY SILT; DEBRIS FILL; HIGHLY ORGANIC (PEAT); SANDY CLAY; CLAYEY SAND; _____; _____

DATE DRILLED	PAGE
5-3-00	1 of 1

DRILLING METHOD: HSA

DRILLED BY: COMPLIANCE

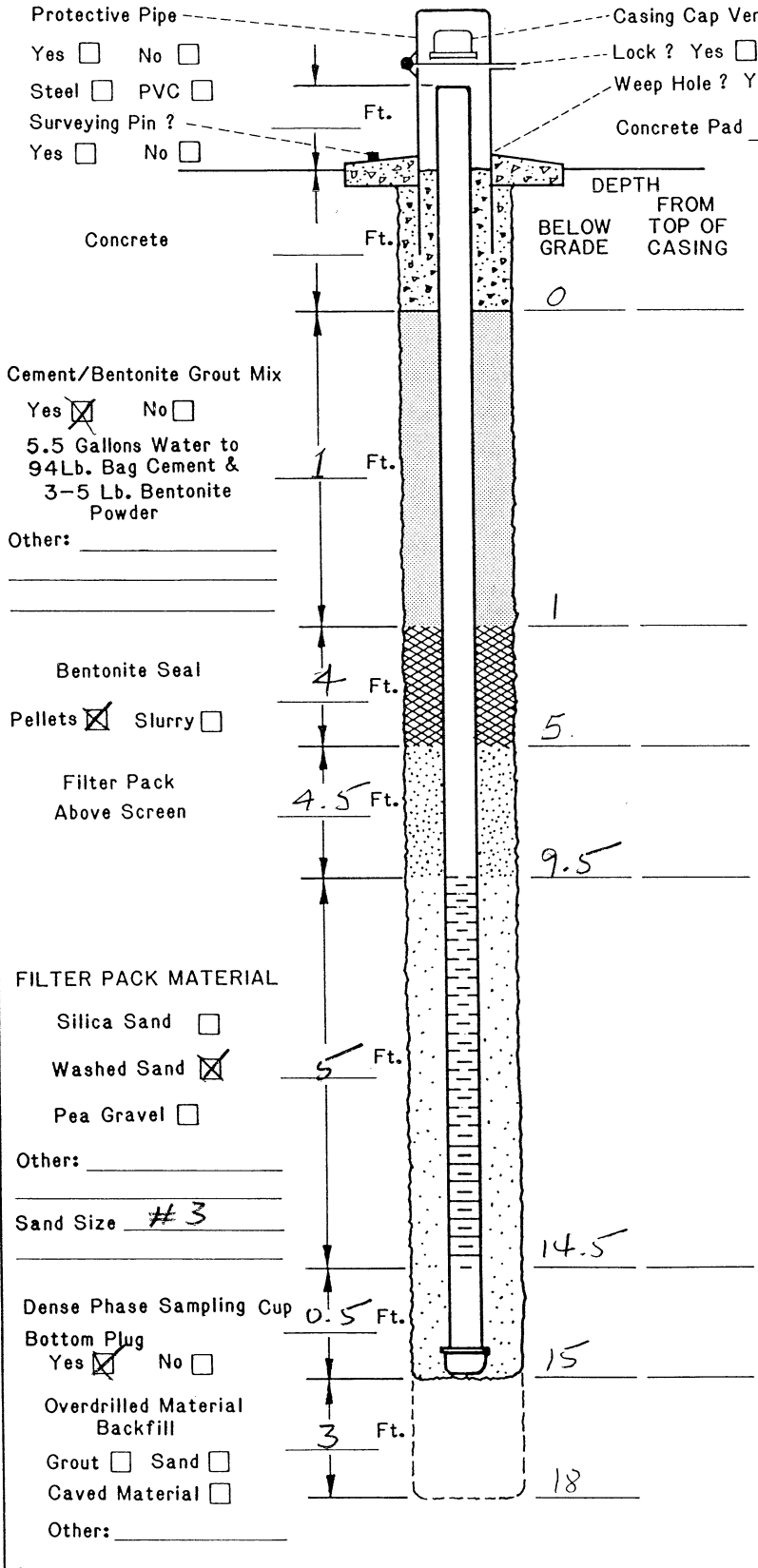
LOGGED BY: ED KRISH

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM

FLUSH MOUNT



DRILLING INFORMATION:

1. Borehole Diameter= 8 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 ____ 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: 0.02
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 ?
   ____ / 60 (Minutes) / Hours
3. Approximate Water Volume Removed ? ____ 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 12.1' Ft. Date 5-3-00

Before Development 6.95' Ft. Date 5-11-00

After Development ____ Ft. Date ____

Driller/Firm COMPLIANCE Drill Rig Type Mobile B-59 Date Installed 5-3-00

Drill Crew WELLS Well No. PC 81 Kerr-McGee Hydrologist Ed KRISH

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON, NV	BORING NUMBER PC 82

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
	0-3 disturbed berm material silty grav SAND		SM-GM							@2' damp
5	3-12 silty gravelly SAND, dk brn, 20% silt, 40% granules & pea gravel (SR) of volc. 40% vf-vc sd, SA-SR.		SM-GM							▽ @5'
10										
12	12-15 sdy cly SILT, dk brn, 15-25% vf-m, SA-SR, sd, 20% clay, 10% SM volc granules, sticky		ML							
15	15-20 silty sdy GRAVEL, dk brn, SR-SA, 20% silt, 25% vf-vc sd, SA-SR		GM							
20	20-30 silty gravelly SAND, dk brn, 20% silt, 40% volc granules to pea gravel to 1/2", SR; vf-vc, SR-SA sd		SM-GM							
25										
30	30-33 sdy silty GRAVEL, dk brn, 30% SA-SR, vf-c sd,		GM							
33	20% silt, 50% volc w/ minor ls gravel to 2-3", SR									
35	33-39 silty gravelly SAND, as above @38'-39' gravel zone, volc SR up to 3" diam		SM-GM							
	39-46 silty SAND, brn,		SM							

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL; AUGER; ROCK CORE; THIN-WALLED TUBE; CONTINUOUS SAMPLER; NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY; SILT; SAND; GRAVEL; SILTY CLAY; CLAYEY SILT; DEBRIS FILL; HIGHLY ORGANIC (PEAT); SANDY CLAY; CLAYEY SAND; _____; _____

DATE DRILLED	PAGE
5-4-00	1 of 2

DRILLING METHOD: HSA

DRILLED BY: Compliance

LOGGED BY: ED KRISH

EXISTING GRADE ELEVATION (FT. AMSL):

LOCATION OR GRID COORDINATES:

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON, NV	BORING NUMBER PC82

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
45	SA, 30% silt in 70% vf-f sd w/ minor c-vc grains sticky. calcareous		SM							
	46-50 silty gravelly SAND, dk brn, as above		SM-GM							
50	50-52 cly, silty SAND, lt. red brn & grn gry. SA-SR vf-fg sd w/ 20% clay & 30% silt. Com sm caliche nodules; calcareous		SM-SC							
52			SM-GM							
56	52-56 silty gravelly SAND, f-c SR-SA w/ 20% silt and 30% volc + ls pebbles to 2"									Muddy Ck @ 56'
60	56-67 silty CLAY, lt grn yellow, sticky		CL							
65										
67	TD 67'									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	PAGE
5-4-00	2 of 2

DRILLING METHOD: HSA

DRILLED BY: Compliance

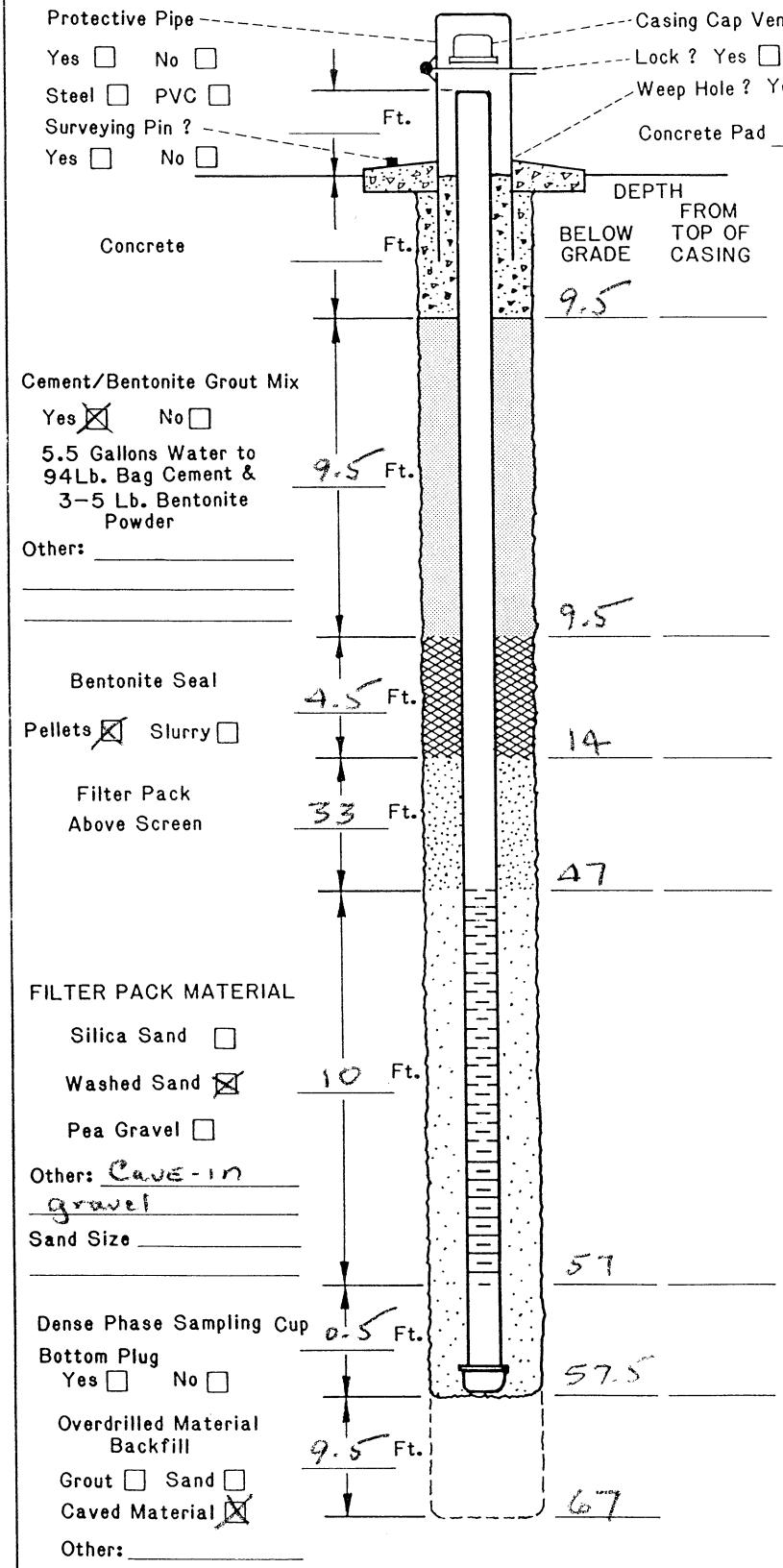
LOGGED BY: ED KRISH

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM

FLUSH MOUNT



DRILLING INFORMATION:

1. Borehole Diameter= 8 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 ____ 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: 0.020
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 ?
   ____ / 60 (Minutes) Hours
3. Approximate Water Volume Removed ? ____ 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 5' Ft. Date 5-4-00
Before Development 4.91' Ft. Date 5-5-00
After Development 5.42' Ft. Date 5-11-00

Driller/Firm COMPLIANCE Drill Rig Type MOBILE B-59 Date Installed 5-4-00

Drill Crew WELLS Well No. PC 82 Kerr-McGee Hydrologist ED KRUH

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON, NV	BORING NUMBER PC 83

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
5	PC 83 is 11' NORTH of PC 82. See log for PC 82 for lithology									▽ @ 5' 5-4-00
10										
15										
20										
25										
30										
35										
	37' TD									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

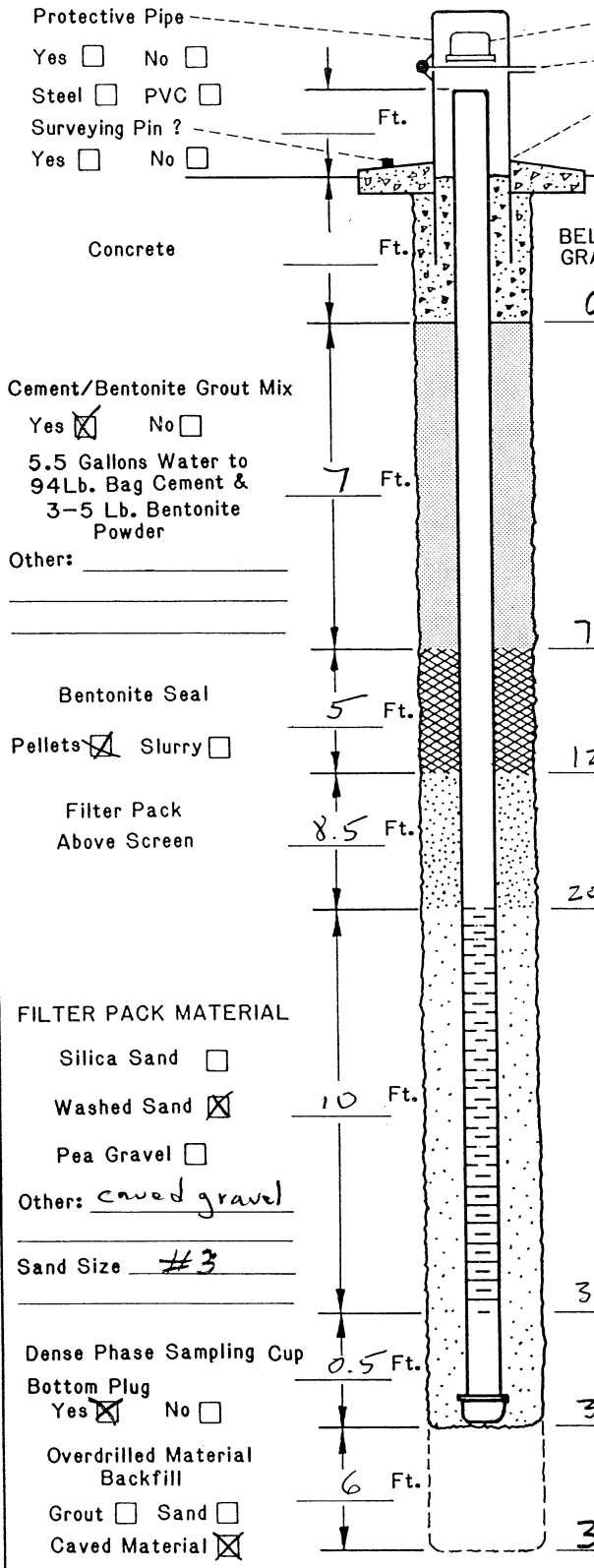
GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	5-4-00
PAGE	1 of 1
DRILLING METHOD	HSA
DRILLED BY	COMPLIANCE
LOGGED BY	ED KRISH
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM

1-FLUSH MOUNT



DRILLING INFORMATION:

1. Borehole Diameter= 8 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 ____ 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: 0.020
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 ?
   160 Minutes/Hours
3. Approximate Water Volume Removed ? ____ 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 5' Ft. Date 5-4-00

Before Development 3.82' Ft. Date 5-11-00

After Development ____ Ft. Date ____

Driller/Firm Compliance Drill Rig Type Mobile B-59 Date Installed 5-5-00

Drill Crew WELLS Well No. PC 83 Kerr-McGee Hydrologist ED KRISH

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON, NV	BORING NUMBER PC 84

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
5	PC 84 is 11' NORTH OF PC 83. SEE log of PC 82 for lithology									▽ @ 5' 5-5-00
10										
15										
	TD 17'									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL · AUGER · ROCK CORE · THIN-WALLED TUBE · CONTINUOUS SAMPLER · NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY · SILT · SAND · GRAVEL · SILTY CLAY · CLAYEY SILT · DEBRIS FILL · HIGHLY ORGANIC (PEAT) · SANDY CLAY · CLAYEY SAND

DATE DRILLED	PAGE
5-5-00	1 of 1

DRILLING METHOD: HSA

DRILLED BY: COMPLIANCE

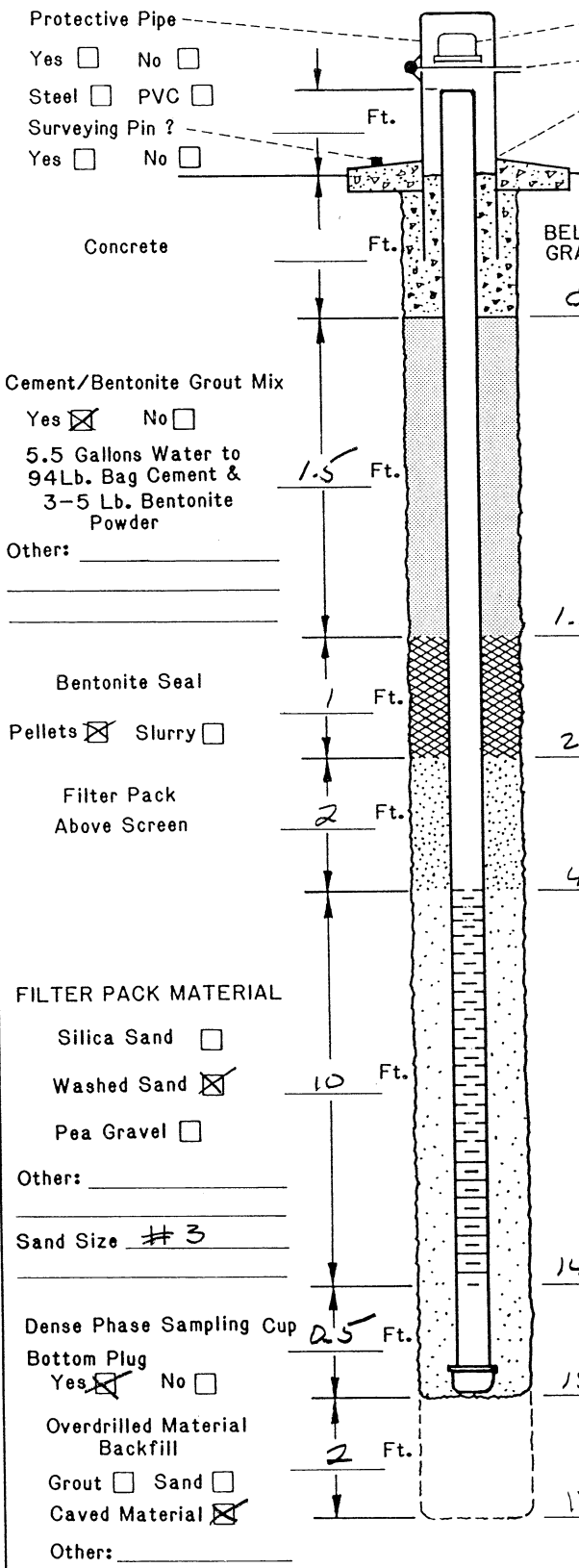
LOGGED BY: ED KRISH

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM

FLUSH MOUNT



DRILLING INFORMATION:

1. Borehole Diameter= 8 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 ____ 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: 0.02
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 ?
   ____ / 60 Minutes / Hours
3. Approximate Water Volume Removed ? ____ 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 5' Ft. Date 5-5-00

Before Development 4.26' Ft. Date 5-11-00

After Development ____ Ft. Date ____

Driller/Firm COMPLIANCE Drill Rig Type Mobile B-59 Date Installed 5-5-00

Drill Crew WELLS Well No. PC 84 Kerr-McGee Hydrologist ED KRISH

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON, NV	BORING NUMBER PC 85

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
5	0-10 sl. silty SAND, gry brn (5YR4/2), SR-SA, poorly sorted vf-vc, 10% silt and 10% volc granules to 1/4"		SW							damp @ 0' ▽ @ 2'
10										
15	10-27 silty gravelly SAND. dk yell brn (10YR4/2) 20-30% silt and 10-20% volc granules and pebbles to 1/2"		SM-GM							
20										
25										
30	27-43 silty sdy GRAVEL dk yell brn (10YR4/2). 30% silt, 25% vf-vc, SA-SR sd and 45% granules + pebbles to 1 1/2"		GM							
35	38-43 v. hard drilling calichified gravel									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL; AUGER; ROCK CORE; THIN-WALLED TUBE; CONTINUOUS SAMPLER; NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY; SILT; SAND; GRAVEL; SILTY CLAY; CLAYEY SILT; DEBRIS FILL; HIGHLY ORGANIC (PEAT); SANDY CLAY; CLAYEY SAND; _____; _____

DATE DRILLED	PAGE
5-10-00	1 of 2

DRILLING METHOD: HSA

DRILLED BY: COMPLIANCE

LOGGED BY: ED KRISH

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON NV	BORING NUMBER PC 85

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
			GM							
43	43 - 47 sdy SILT, yell gry + lt brn, 5-10% m-c SR gr grains + 5-10% c-vc caliche nodules. Calcareous		ML							MC @ 43'?
47	47-67 CLAY and silty CLAY, interbedded. 15-25% dissem caliche nodules. Calcareous. sticky		CL							
55	47-57 mod red orange 10R6/6									
60	57-64 lt grn gry (5GY 8/1)									
	64-67 med gry (N5)									
65										
	TD 67'									
70										

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL; AUGER; ROCK CORE; THIN-WALLED TUBE; CONTINUOUS SAMPLER; NO RECOVERY

- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY; SILT; SAND; GRAVEL; SILTY CLAY; CLAYEY SILT; DEBRIS FILL; HIGHLY ORGANIC (PEAT); SANDY CLAY; CLAYEY SAND; _____; _____

DATE DRILLED	PAGE
5-10-00	2 of 2

DRILLING METHOD: HSA

DRILLED BY: Compliance

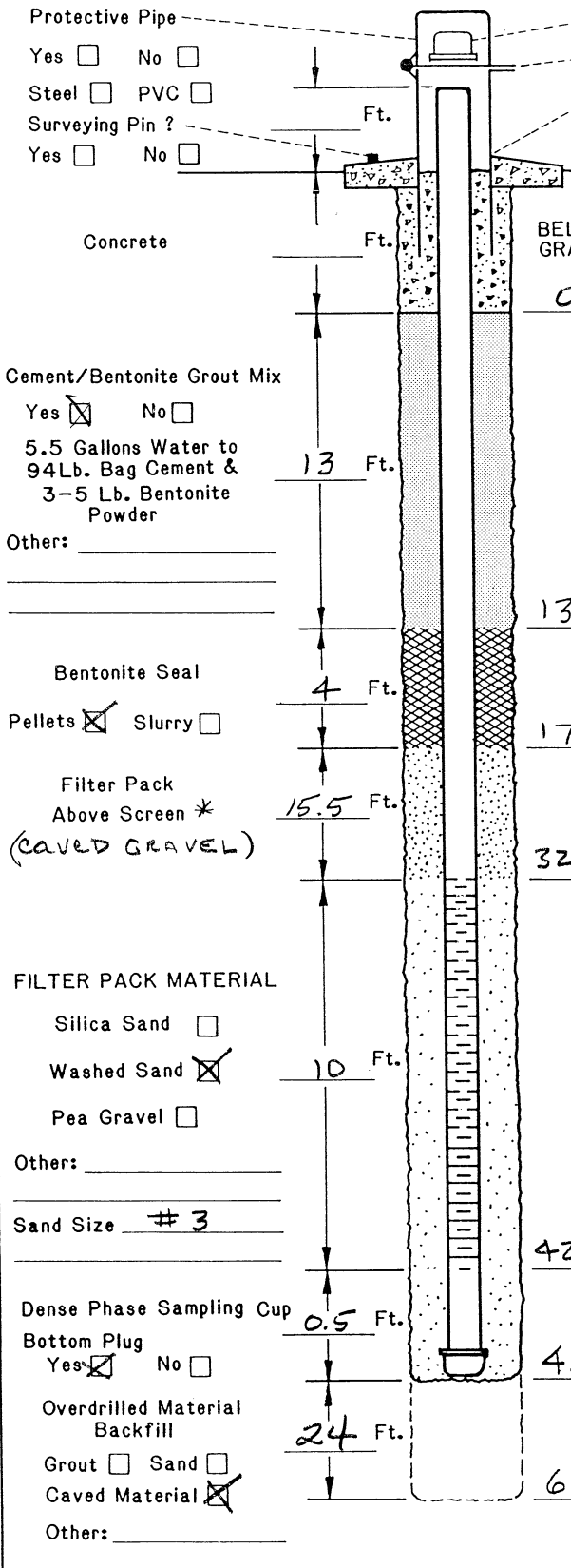
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EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM

FLUSH Mount



DRILLING INFORMATION:

1. Borehole Diameter= 8 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 _____ 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: 0.020
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 ?
   _____ / 60 Minutes / Hours
3. Approximate Water Volume Removed ? _____ 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 2' Ft. Date 5-10-00
Before Development 0-33' Ft. Date 5-12-00
After Development _____ Ft. Date _____

Driller/Firm COMPLIANCE Drill Rig Type Mobile B-59 Date Installed 5-10-00

Drill Crew WELLS Well No. PC 85 Kerr-McGee Hydrologist Ed Krish

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON, NV	BORING NUMBER PC 86

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
										▽ 22'
5	PC 86 is 10' east of PC 85. SEE log of PC 85 for lithology									
10										
15										
20										
25										
30	TD 30'									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	PAGE
5-11-00	1 of 1

DRILLING METHOD: HSA

DRILLED BY: COMPLIANCE

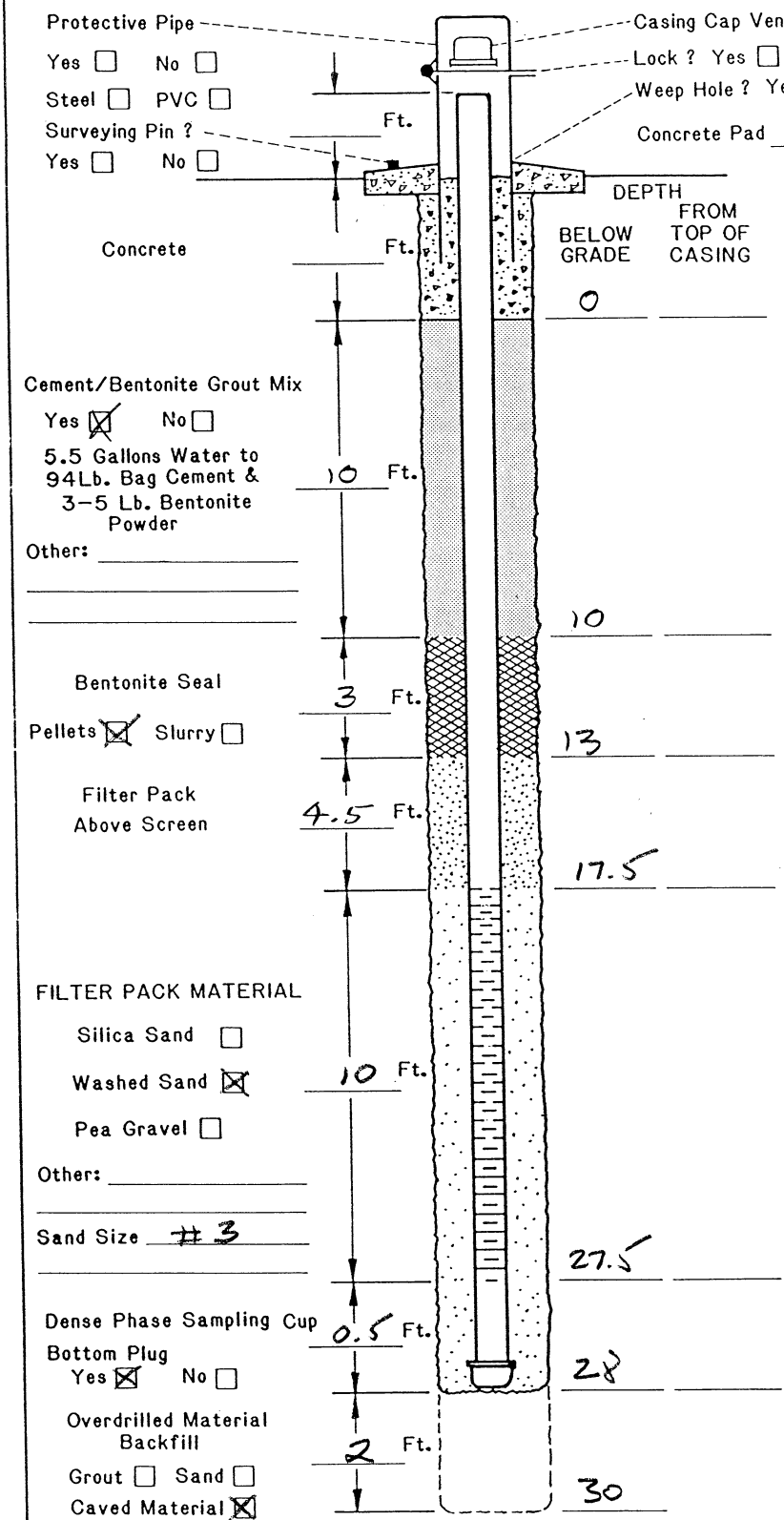
LOGGED BY: ED KRISH

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM

FLUSH MOUNT



DRILLING INFORMATION:

1. Borehole Diameter= 8 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 _____ 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: 0.020
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 ?
   _____ / 60 (Minutes/Hours)
3. Approximate Water Volume Removed ? _____ 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 2' Ft. Date 5-11-00

Before Development 0.58' Ft. Date 5-12-00

After Development _____ Ft. Date _____

Driller/Firm COMPLIANCE Drill Rig Type Mobile B59 Date Installed 5-11-00

Drill Crew WELLS Well No. PC86 Kerr-McGee Hydrologist Ed Krish

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON, NV	BORING NUMBER PC 87

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
5	PC 87 located 10' EAST of PC 86. SEE Log of PC 85 for lithology									
10										
15	TD 15'									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL · AUGER · ROCK CORE · THIN-WALLED TUBE · CONTINUOUS SAMPLER · NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY · DEBRIS FILL · SILT · HIGHLY ORGANIC (PEAT) · SAND · SANDY CLAY · GRAVEL · CLAYEY SAND · SILTY CLAY · _____ · CLAYEY SILT · _____

DATE DRILLED	PAGE
5-11-00	1 of 1

DRILLING METHOD: HSA

DRILLED BY: Compliance

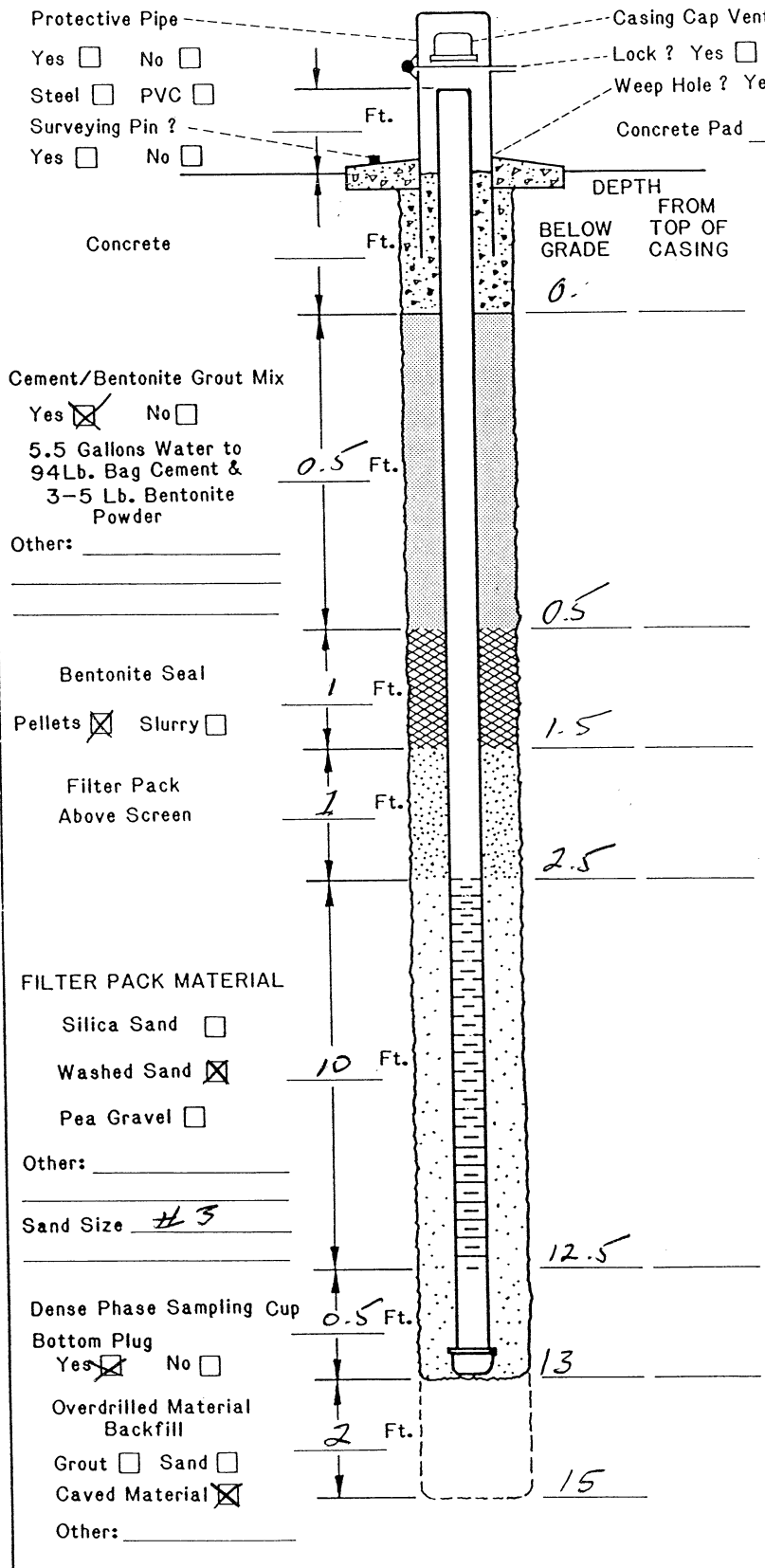
LOGGED BY: ED KRISH

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM

FLUSH MOUNT



DRILLING INFORMATION:

1. Borehole Diameter= 8 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 _____ 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: 0.020
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 ?
   _____ / 60 Minutes / Hours
3. Approximate Water Volume Removed ? _____ 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 21' Ft. Date 5-11-00

Before Development 1-78' Ft. Date 5-12-00

After Development _____ Ft. Date _____

Driller/Firm COMPLIANCE Drill Rig Type Mobile B-59 Date Installed 5-11-00

Drill Crew WELLS Well No. PC 87 Kerr-McGee Hydrologist ED KRISH

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON, NV	BORING NUMBER PC 88

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
5	0-12 sdy GRAVEL, pale brn (5YR 5/2). 10% silt, 30% sd (SA-SR, vf-vc) and 60% volc gravel (SA-SR, up to 3" diam.		GW							damp @ 0' ▽ @ 2'
10										
15	12-51 silty gravelly SAND. pale yell brn (10YR 6/2). Var. silt 20-40%. 20-30% pea gravel to 3/4" (volc). Sand SA-SR vf-vc		SM-GM							
20	12-21 10-20% silty matrix									
25	21-51 com silt in matrix 30-40%									
30	27-33 gravel zone w/ pebbles to 3". Var. caliche cement 32-33 v. hard. slow drilling abu caliche cement									
35	37-51 Var. amts of gravel (pebbles to 2") up to 50%									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL · AUGER · ROCK CORE · THIN-WALLED TUBE · CONTINUOUS SAMPLER · NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY · SILT · SAND · GRAVEL · SILTY CLAY · CLAYEY SILT · DEBRIS FILL · HIGHLY ORGANIC (PEAT) · SANDY CLAY · CLAYEY SAND

DATE DRILLED	PAGE
5-11-00	1 of 2

DRILLING METHOD: HSA

DRILLED BY: COMPLIANCE

LOGGED BY: ED KRISH

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON, NV	BORING NUMBER PC 88

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
45	NOTE: Most likely this unit is a series of fluvial fining-upward sediments, from gravels to silts		SM GM							
51	51-62 silty CLAY, grn gry (5GY8/2) and yell gry (5Y8/1)		CL							MC @ 51'
55										
60										
62	TD 62'									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	PAGE
5-12-00	2 of 2

DRILLING METHOD: HSA

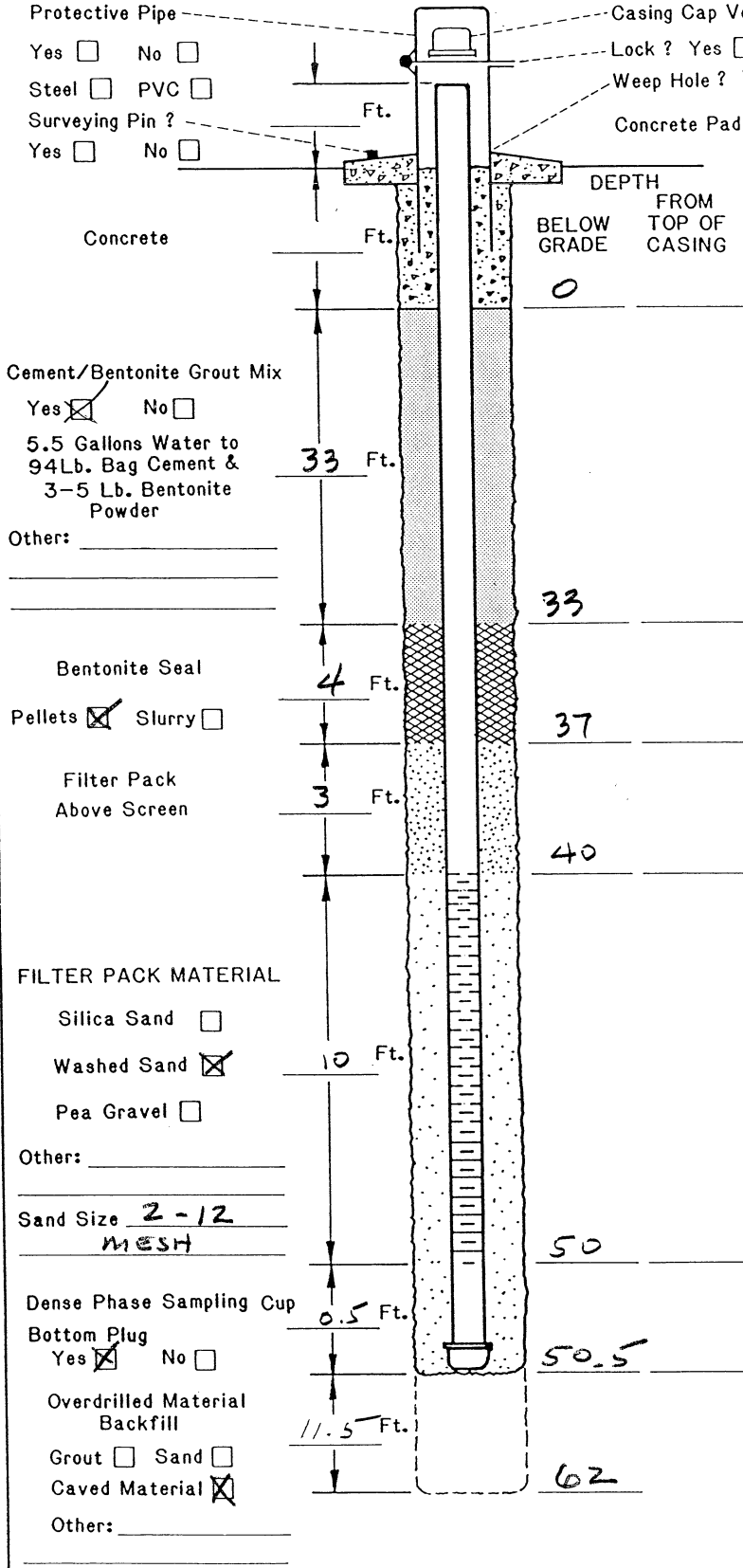
DRILLED BY: COMPLIANCE

LOGGED BY: ED KRISH

EXISTING GRADE ELEVATION (FT AMSL):

LOCATION OR GRID COORDINATES:

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM FLUSH MOUNT



DRILLING INFORMATION:

1. Borehole Diameter= 8 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 _____ 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: 0.020
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 ?
   _____ / 60 (Minutes) Hours
3. Approximate Water Volume Removed ? _____ 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 2' Ft. Date 5-11-00
Before Development 0.21' Ft. Date 5-13-00
After Development _____ Ft. Date _____

Driller/Firm COMPLIANCE Drill Rig Type MOBILE B-59 Date Installed 5-11-00
Drill Crew WELLS Well No. PC 88 Kerr-McGee Hydrologist ED KRISH

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON, NV	BORING NUMBER PC89

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
										▽ @ 2'
5	PC89 located 7' east of PC88. See log of PC88 for lithology									
10										
15										
20										
25										
30										
35										
39	TD 39'									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL; AUGER; ROCK CORE; THIN-WALLED TUBE; CONTINUOUS SAMPLER; NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY; SILT; SAND; GRAVEL; SILTY CLAY; CLAYEY SILT; DEBRIS FILL; HIGHLY ORGANIC (PEAT); SANDY CLAY; CLAYEY SAND; _____; _____

DATE DRILLED	PAGE
5-12-00	1 of 1

DRILLING METHOD: HSA

DRILLED BY: Compliance

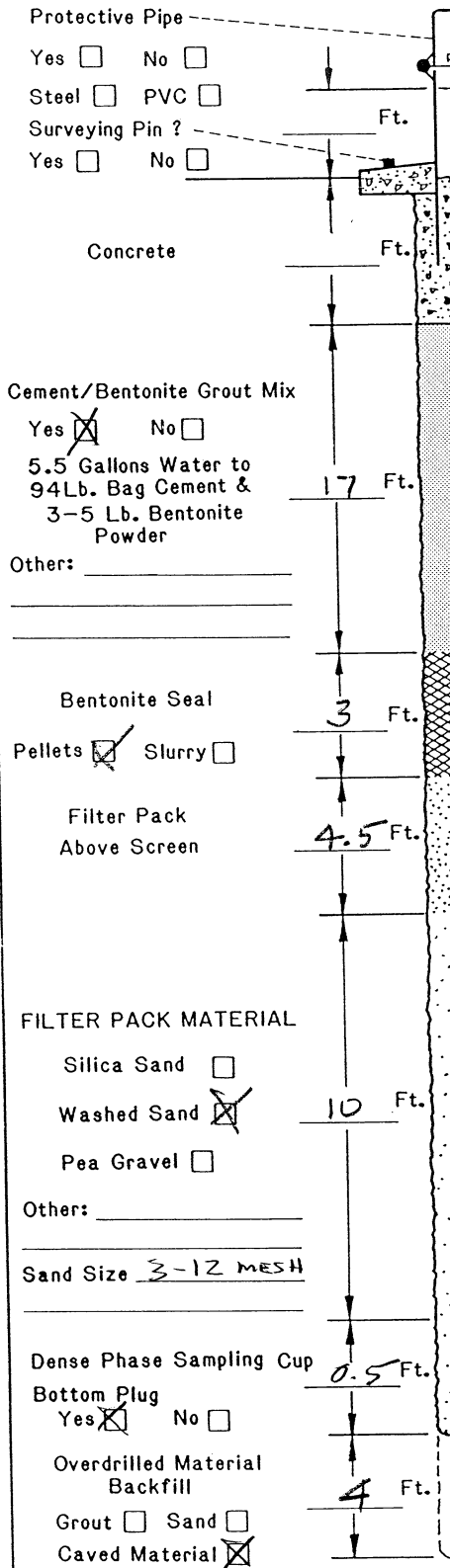
LOGGED BY: ED KRISH

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM

FLUSH MOUNT



DRILLING INFORMATION:

1. Borehole Diameter= 8 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 _____ 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: 0.020
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 ?
   _____ / 60 Minutes/Hours
3. Approximate Water Volume Removed ? _____ 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 2 Ft. Date 5-12-00
Before Development +0.08' Ft. Date 5-13-00
After Development _____ Ft. Date _____

Driller/Firm COMPLIANCE
Drill Rig Type Mobile B-59
Date Installed 5-12-00
Drill Crew WELLS
Well No. PC 89
Kerr-McGee Hydrologist ED KRISH

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON, NV	BORING NUMBER PC 90

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
										▽ @ 2'
5	PC 90 located 10' east of PC 89. See log of PC 88 for lithology									
10										
15										
18	TD 18'									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL · AUGER · ROCK CORE · THIN-WALLED TUBE · CONTINUOUS SAMPLER · NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY · DEBRIS FILL · SILT · HIGHLY ORGANIC (PEAT) · SAND · SANDY CLAY · GRAVEL · CLAYEY SAND · SILTY CLAY · _____ · CLAYEY SILT · _____

DATE DRILLED	PAGE
5-12-00	1 of 1

DRILLING METHOD: HSA

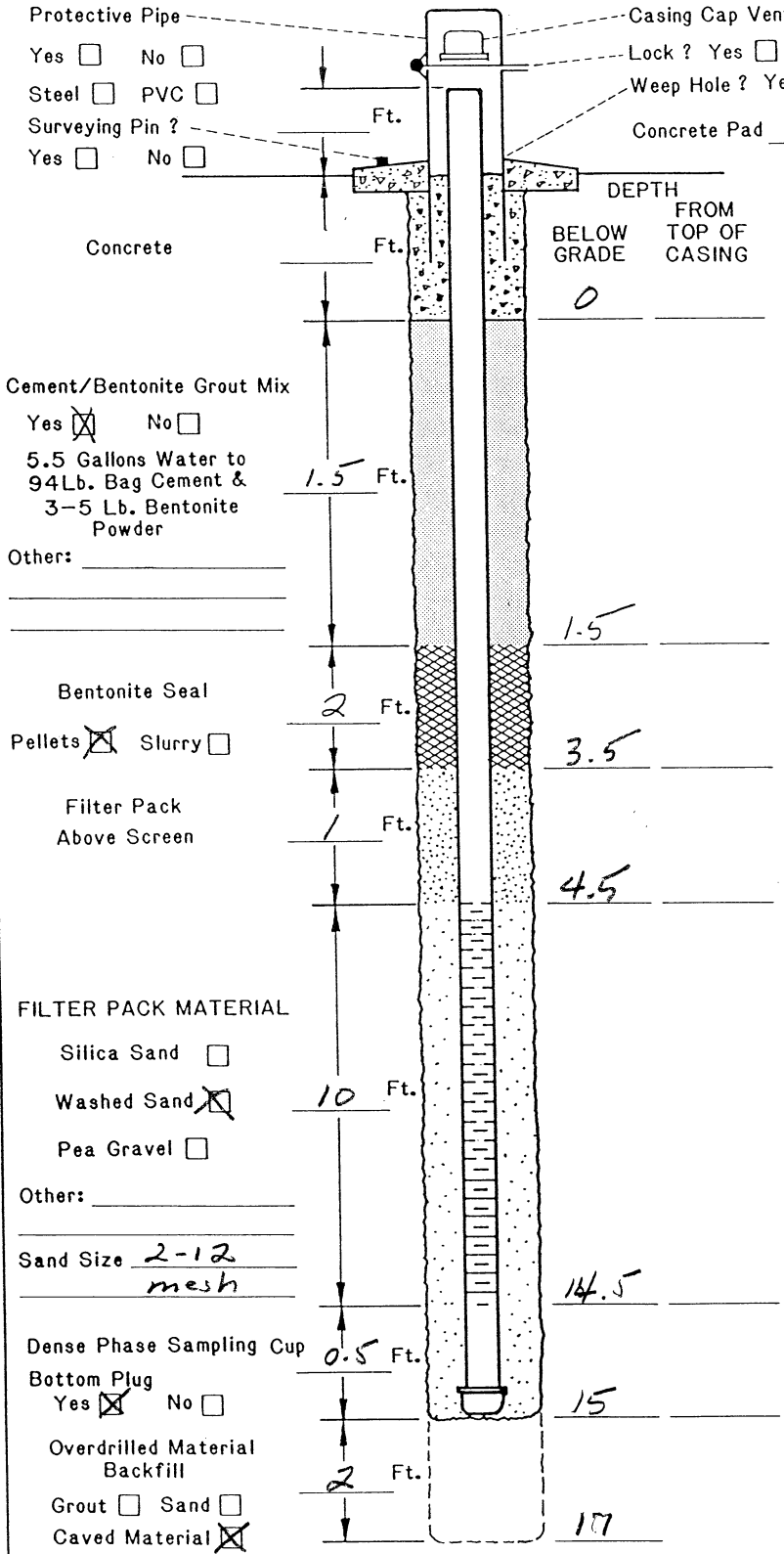
DRILLED BY: Compliance

LOGGED BY: ED KRISH

EXISTING GRADE ELEVATION (FT AMSL)

LOCATION OR GRID COORDINATES

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM



FLUSH MOUNT

DRILLING INFORMATION:

1. Borehole Diameter= 8 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 _____ 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: 0.020
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 ?
   _____ / 60 Minutes/Hours
3. Approximate Water Volume Removed ? _____ 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 _____

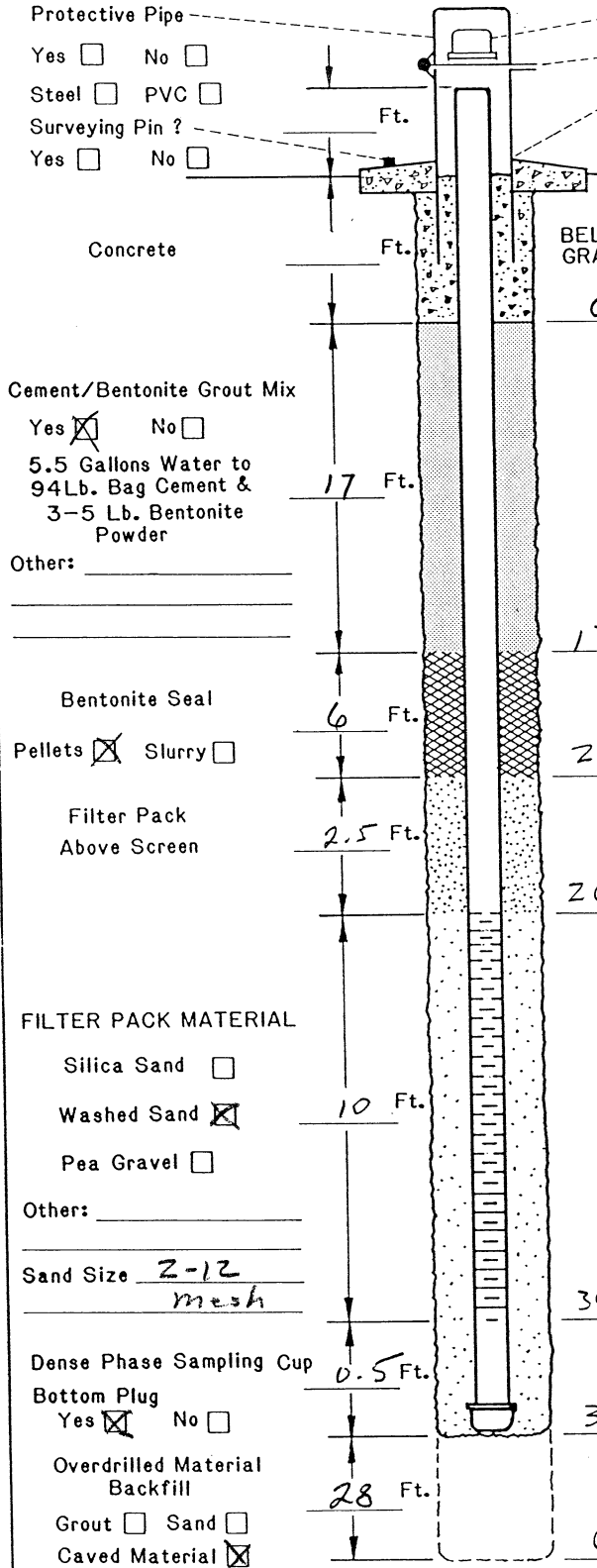
WATER LEVEL INFORMATION:

Water Level Summary (From Top of Casing)

During Drilling 2' Ft. Date 5-12-00
Before Development 0.64' Ft. Date 5-13-00
After Development _____ Ft. Date _____

Driller/Firm COMPLIANCE Drill Rig Type Mobile Date Installed 5-12-00
Drill Crew WELLS Well No. PC 90 Kerr-McGee Hydrologist ED KRISH

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM



FLUSH MOUNT

DRILLING INFORMATION:

1. Borehole Diameter= 8 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 _____ 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: 0.020
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 ?
   _____ / 60 Minutes/Hours
3. Approximate Water Volume Removed ? _____ 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 10 ' Ft. Date 5-13-00

Before Development 4.19' Ft. Date 5-14-00

After Development _____ Ft. Date _____

Driller/Firm COMPLIANCE Drill Rig Type Mobile B-59 Date Installed 5-13-00

Drill Crew WELLS Well No. PC 91 Kerr-McGee Hydrologist ED KRISH

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON, NV	BORING NUMBER PC 91

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	0-6 gravelly SAND, mod brn (5YR 4/2), poorly sorted, SA-SR. with 10% silt and 20% SA-SR volc granules and pebbles to 2"		SW							damp @ 7
5										
10	6-31 silty gravelly SAND, mod brn (5YR 4/2), contain 25% silt in matrix and 25% volc granules and pebbles to 1/2" diam. Sand vf-vc SA-SR. minor small caliche nodules		SM-GM							▽ @ 10'
15										
20										
25										
31	31-40 silty sdy GRAVEL mod brn (5YR 4/2). 25% silt, 25% vf-vc SA-SR sd and 50% SR, volc & ls granules and sm pebbles to 1" diam.		GM							
35										

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL · AUGER · ROCK CORE · THIN-WALLED TUBE · CONTINUOUS SAMPLER · NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY · SILT · SAND · GRAVEL · SILTY CLAY · CLAYEY SILT · DEBRIS FILL · HIGHLY ORGANIC (PEAT) · SANDY CLAY · CLAYEY SAND

DATE DRILLED	PAGE
5-13-00	1 of 2

DRILLING METHOD: HSA

DRILLED BY: COMPLIANCE

LOGGED BY: ED KRISH

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON, NV	BORING NUMBER PC 91

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
	40-62 silty CLAY sticky w/10% vfg sd									MC @ 40
	40-42 lt grn gry (5GY 8/1)									
45	42-58 pale olive (10Y 6/2)									
	58-62 mod grn gry (5G 5/1) w/ 10-20% caliche nodules & ls granules to 1/4"		CL							
50										
55										
60										
	62-65 silty CLAY with abn gypsum xtals. mod grn gry (5G 5/1) 1" gyp xtals		CL							
65	TD 65'									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL · AUGER · ROCK CORE · THIN-WALLED TUBE · CONTINUOUS SAMPLER · NO RECOVERY

- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY · SILT · SAND · GRAVEL · SILTY CLAY · CLAYEY SILT · DEBRIS FILL · HIGHLY ORGANIC (PEAT) · SANDY CLAY · CLAYEY SAND

DATE DRILLED	PAGE
5-13-00	2 of 2

DRILLING METHOD: HSA

DRILLED BY: Compliance

LOGGED BY: Ed Krish

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON, NV	BORING NUMBER PC 92

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
5	PC 92 located 20' west of PC 91. See log of PC 91 for lithology									damp @ 7'
10										▽ @ 10'
15										
20										
25										
30	TD 30'									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL · AUGER · ROCK CORE · THIN-WALLED TUBE · CONTINUOUS SAMPLER · NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY · SILT · SAND · GRAVEL · SILTY CLAY · CLAYEY SILT · DEBRIS FILL · HIGHLY ORGANIC (PEAT) · SANDY CLAY · CLAYEY SAND

DATE DRILLED	PAGE
5-12-00	1 of 1

DRILLING METHOD: HSA

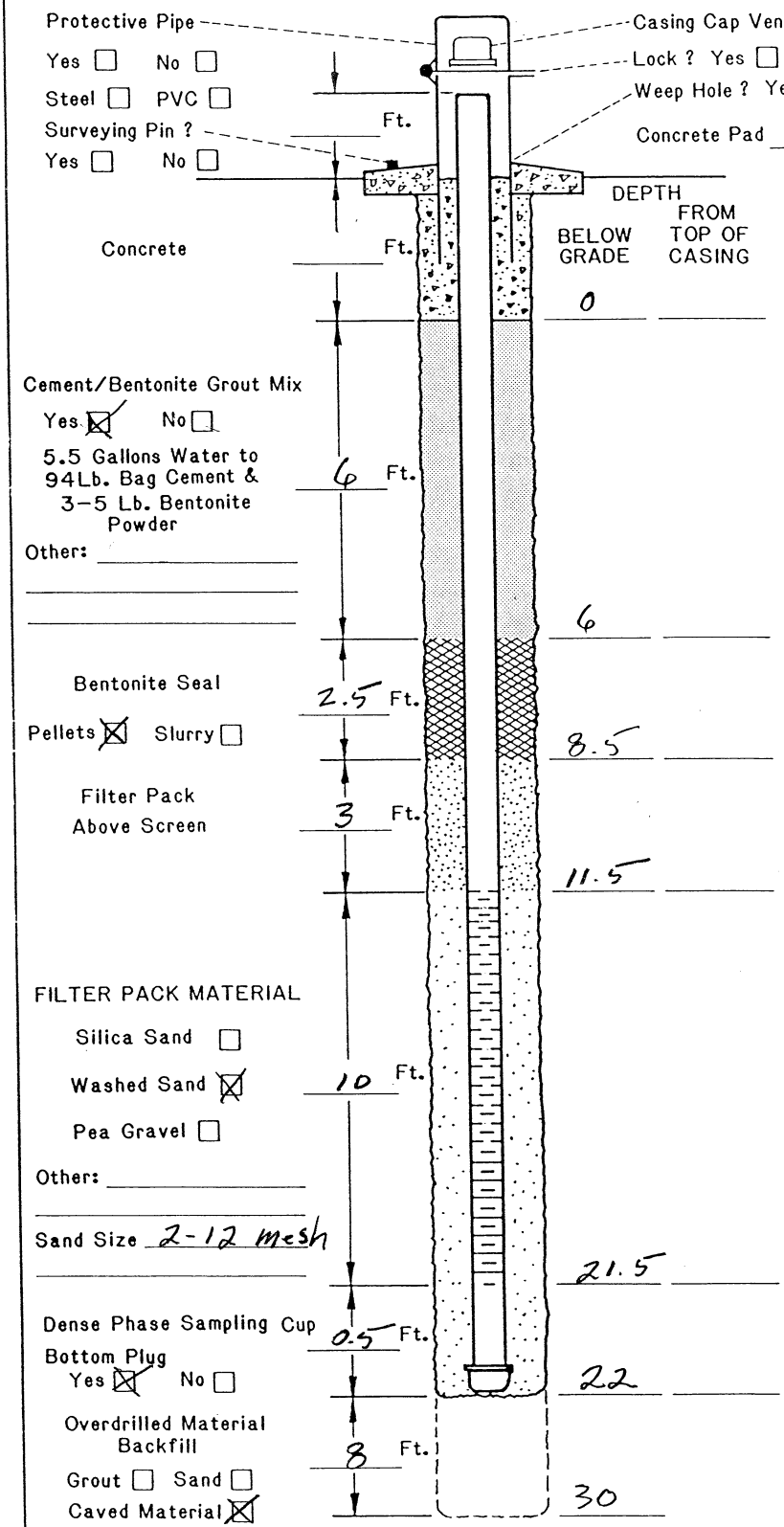
DRILLED BY: Compliance

LOGGED BY: ED KRISH

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM



DRILLING INFORMATION:

1. Borehole Diameter= 8 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 _____ 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: 0.020
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 ?
   _____ / 60 Minutes / Hours
3. Approximate Water Volume Removed ? _____ 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 10' Ft. Date 5-12-00
Before Development 4.72' Ft. Date 5-13-00
After Development 4.77' Ft. Date 5-14-00

Driller/Firm COMPLIANCE Drill Rig Type MOBILE B-59 Date Installed 5-12-00

Drill Crew WELLS Well No. PC 92 Kerr-McGee Hydrologist ED KRISH

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON, NV	BORING NUMBER PC 93

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
5	0-15 sdy GRAVEL, mod brn (5YR 4/2). 30% vf-vc, SA-SR sand and 10% silt. 60% SA-SR, volc granules and pebbles to 2"		GW							damp @ 6' ▽ @ 10'
10										
15	15-40 silty gravelly SAND, mod brn (5YR 4/2). 20-25% silt in matrix 20-30% volc SA-SR granules and sm pebbles to ½-¾". 50-60% vf-vc sand		SM-GM							
20										
25										
30	30-40 increase in silt content to 40%									
35	35-40 inc. in gravel size to 1-1½" diam. Mod caliche cemented									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	PAGE
5-13-00	1 of 2
DRILLING METHOD: HSA	
DRILLED BY: COMPLIANCE	
LOGGED BY: ED KRISH	
EXISTING GRADE ELEVATION (FT AMSL)	
LOCATION OR GRID COORDINATES	

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON, NV	BORING NUMBER PC 93

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
45	40-57 silty CLAY and cly SILT, interbedded - pale olive (10Y6/2) and lt grn gry (5GY8/1) to 43'; mod grn gry (5G5/1) to 50'; pale olive to 57' 5-15% dissem vf-cg caliche nodules throughout 5-10% vfg sand dissem in matrix		CL-ML							MC @ 40'
50										
55										
57	TD 57'									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL · AUGER · ROCK CORE · THIN-WALLED TUBE · CONTINUOUS SAMPLER · NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY · DEBRIS FILL · SILT · HIGHLY ORGANIC (PEAT) · SAND · SANDY CLAY · GRAVEL · CLAYEY SAND · SILTY CLAY · CLAYEY SILT

DATE DRILLED	PAGE
5-13-00	2 of 2

DRILLING METHOD: HSA

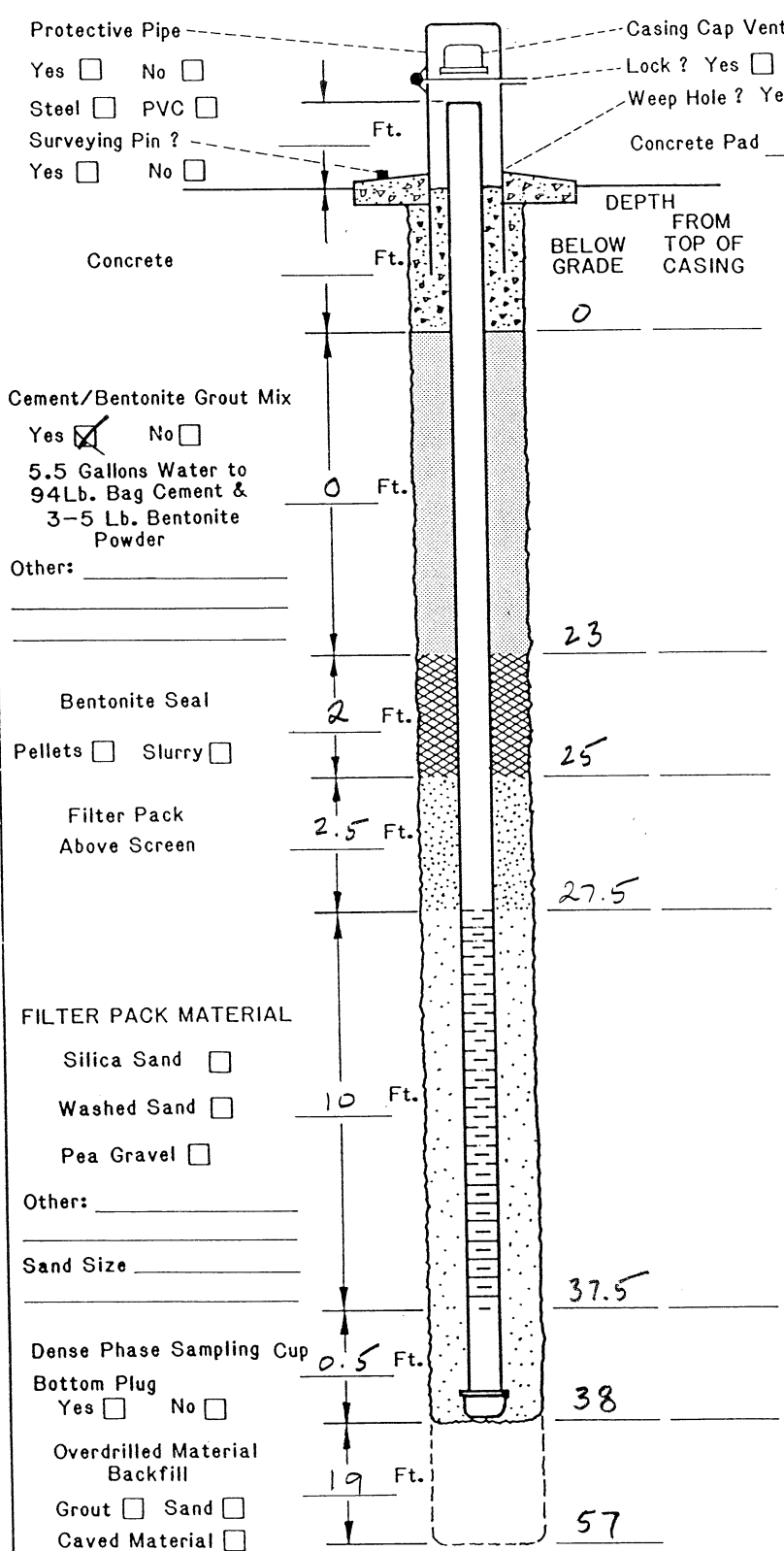
DRILLED BY: Compliance

LOGGED BY: ED KRISH

EXISTING GRADE ELEVATION (FT AMSL)

LOCATION OR GRID COORDINATES

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM



FLUSH MOUNT

DRILLING INFORMATION:

1. Borehole Diameter= 8 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 _____ 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: 0.020
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 ?
   _____ / 60 (Minutes)/Hours
3. Approximate Water Volume Removed ? _____ 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 10 ' Ft. Date 5-13-00
Before Development 3.89 ' Ft. Date 5-15-00
After Development _____ Ft. Date _____

Driller/Firm COMPLIANCE Drill Rig Type _____ Date Installed 5-13-00
Drill Crew WELLS Well No. PC 93 Kerr-McGee Hydrologist ED KRISTI

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON, NV	BORING NUMBER PC 94

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
5	PC 94 located 10' east of PC 93. See log of PC 93 for lithology									dump @ 5'
10										▽ @ 10'
15										
20										
25	TD 25'									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL; AUGER; ROCK CORE; THIN-WALLED TUBE; CONTINUOUS SAMPLER; NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY; SILT; SAND; GRAVEL; SILTY CLAY; CLAYEY SILT; DEBRIS FILL; HIGHLY ORGANIC (PEAT); SANDY CLAY; CLAYEY SAND; _____; _____

DATE DRILLED	PAGE
5-14-00	1 of 1

DRILLING METHOD: HSA

DRILLED BY: Compliance

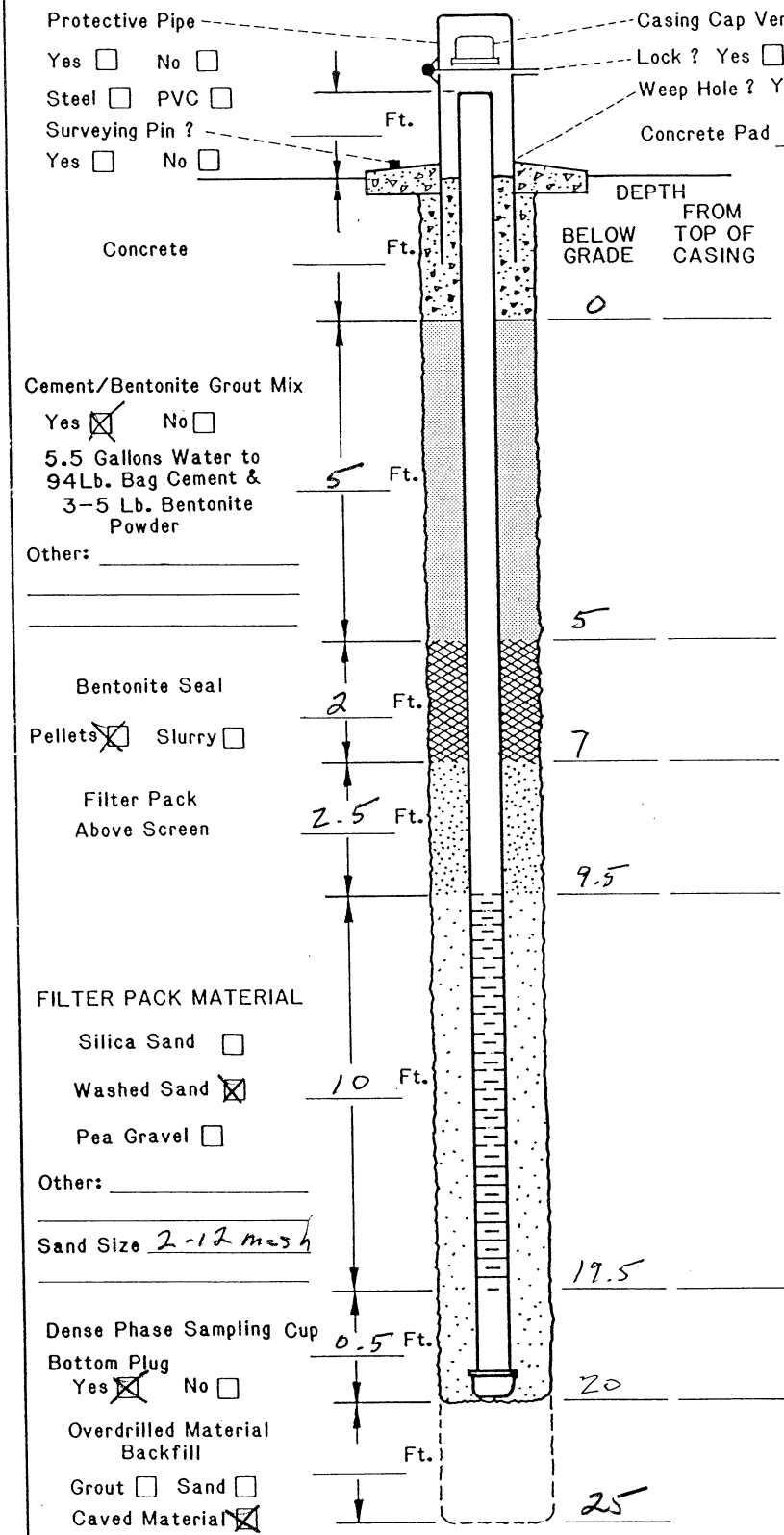
LOGGED BY: Ed Krish

EXISTING GRADE ELEVATION (FT AMSL)

LOCATION OR GRID COORDINATES

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM

FLUSH MOUNT



DRILLING INFORMATION:

1. Borehole Diameter= 8 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 _____ 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: 0.020
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 ?
   _____ / 60 Minutes/Hours
3. Approximate Water Volume Removed ? _____ 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 10' Ft. Date 5-14-00

Before Development 4.54' Ft. Date 5-15-00

After Development _____ Ft. Date _____

Driller/Firm COMPLIANCE Drill Rig Type Mobile B-59 Date Installed 5-14-00

Drill Crew WELLS Well No. PC 94 Kerr-McGee Hydrologist ED KRISH

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON, NV	BORING NUMBER PC 95

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
5	0-7 BERM MATERIAL - silty gravelly SAND		SM-GM							WET @ 2' ▽ @ 5
10	7-35 silty gravelly SAND, pale brn (5YR 5/2). 20% in matrix. 30% vole granule to sm pea gravel (SR-SA) to 1" diam. 50% SA-SR, vf-vcg sand		SM-GM							@10' WTR SMPL field cond 13,000 PH 7.4
15										
20										
25	21-35 com. hard caliche cement. Inc in gravel size to 3". Com ls. pebbles									
30										
35										
38	35-38 silty SAND, pale yell brn (10YR 6/2). 30% silt in matrix. sand is vf-mg, SA-SR		SM							
			SM-GM							

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	PAGE
5-14-00	1 of 2
DRILLING METHOD: HSA	
DRILLED BY: COMPLIANCE	
LOGGED BY: ED KRISH	
EXISTING GRADE ELEVATION (FT AMSL)	
LOCATION OR GRID COORDINATES	

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY	LOCATION	BORING NUMBER PC95

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
43	38-43 gravelly silty SAND, pale yellow brn and dusky yell grn (5GY5/2). 35% silt, 25% granules and pea gravel to 1/2-3/4". 40% vf-mg SR-SA sand. Calcareous		SM-GM							MC @ 43
45	43-50 dy SILT and silty CLAY, interbedded. Mod gry yell grn (5GY6/2). Dry. Com calcareous		ML-CL							
50	TD 50									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL · AUGER · ROCK CORE · THIN-WALLED TUBE · CONTINUOUS SAMPLER · NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY · SILT · SAND · GRAVEL · SILTY CLAY · CLAYEY SILT · DEBRIS FILL · HIGHLY ORGANIC (PEAT) · SANDY CLAY · CLAYEY SAND

DATE DRILLED	PAGE
5-14-00	2 of 2

DRILLING METHOD

DRILLED BY

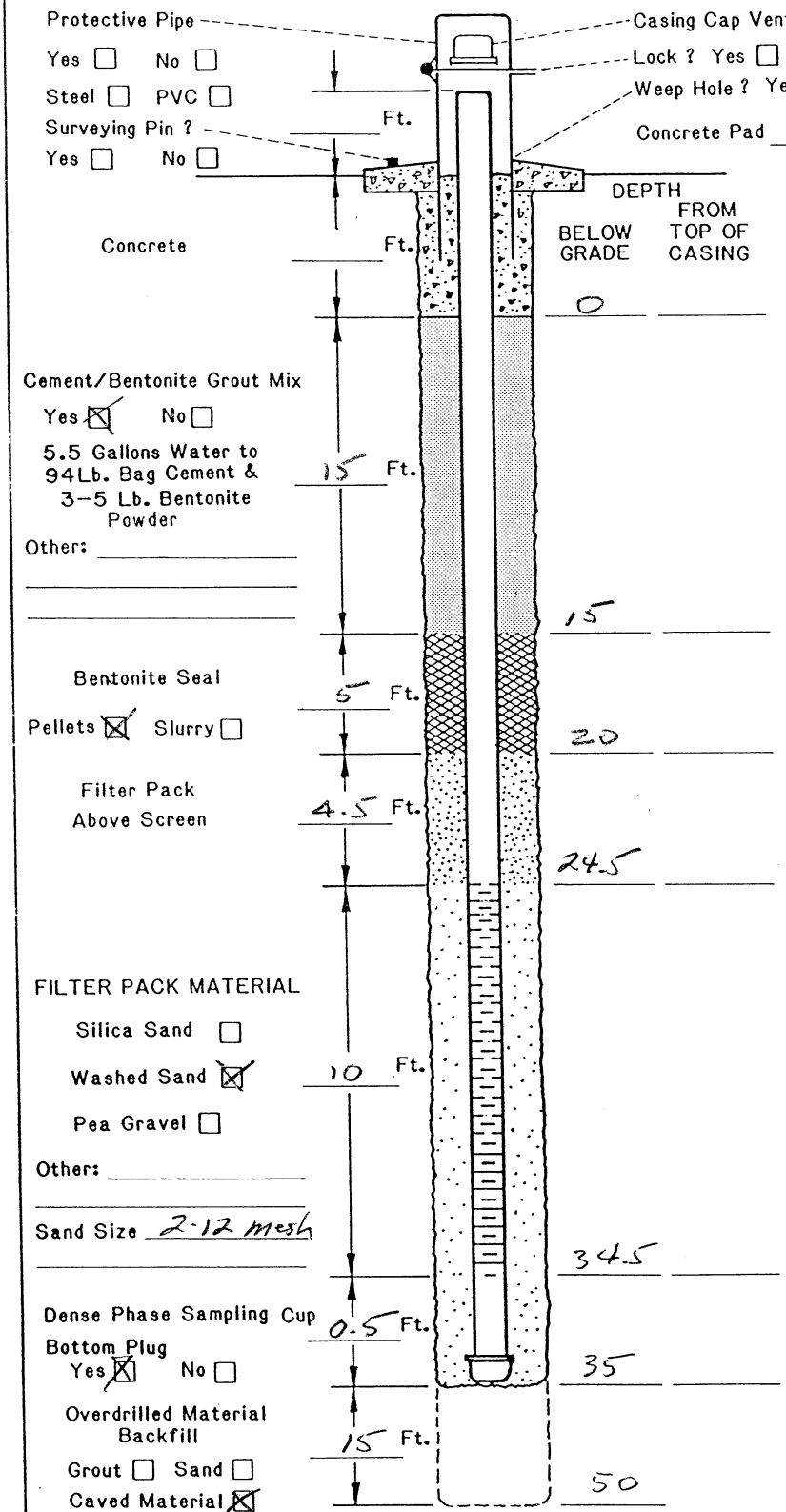
LOGGED BY

EXISTING GRADE ELEVATION (FT AMSL)

LOCATION OR GRID COORDINATES

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM

FLUSH MOUNT



DRILLING INFORMATION:

1. Borehole Diameter= 8 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 _____ 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: 0.020
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 ?
   _____ / 60 Minutes/Hours
3. Approximate Water Volume Removed ? _____ 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 5' Ft. Date 5-14-00

Before Development 2.02' Ft. Date 5-17-00

After Development _____ Ft. Date _____

Driller/Firm COMPLIANCE Drill Rig Type Mobile B-59 Date Installed 5-15-00

Drill Crew WELLS Well No. PC-95 Kerr-McGee Hydrologist ED KRISH

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON, NV	BORING NUMBER PC 96

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
	0-6 BERM MATERIAL Gravelly SAND, brn		SW							damp @ 3' ▽ @ 6
6 7	6-7 Organic-rich silt, dkgry		OL							
10	7-44 silty gravelly SAND, mod yell brn (10YR 5/2), 20-25% silt in matrix, 20-25% volc and ls granules and pebbles to 3" diam. Sand is vf-vc, SR-SA, w/ minor c-vc dissem caliche nodules		SM-GM							
15										
20	7-28 gravel is granules and pea gravel size to 1/2" diam, SR-R									
25	28-31 hard zone - Caliche cemented									
30	31-44 com gravel to 2" diam w/ minor 3"									
35										

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	PAGE
5-15-00	1 of 2
DRILLING METHOD: HSA	
DRILLED BY: Compliance	
LOGGED BY: ED KRISH	
EXISTING GRADE ELEVATION (FT AMSL)	
LOCATION OR GRID COORDINATES	

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON, NV	BORING NUMBER PC 96

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
44			SM-GM							
47	44-47 silty SAND, lt gry orange (10YR 8/4). vf-fg, mod well sorted, SA-SR. Minor mg w/occ. thin granule beds. Very calcareous		SM							
50	47-50 silty sdy CLAY, mod yell grn (5GY 6/2) Matrix contains 20-30% silt and 10-20% vfg SA sand		CL							MC @ 47'
	TD 50									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL · AUGER · ROCK CORE · THIN-WALLED TUBE · CONTINUOUS SAMPLER · NO RECOVERY

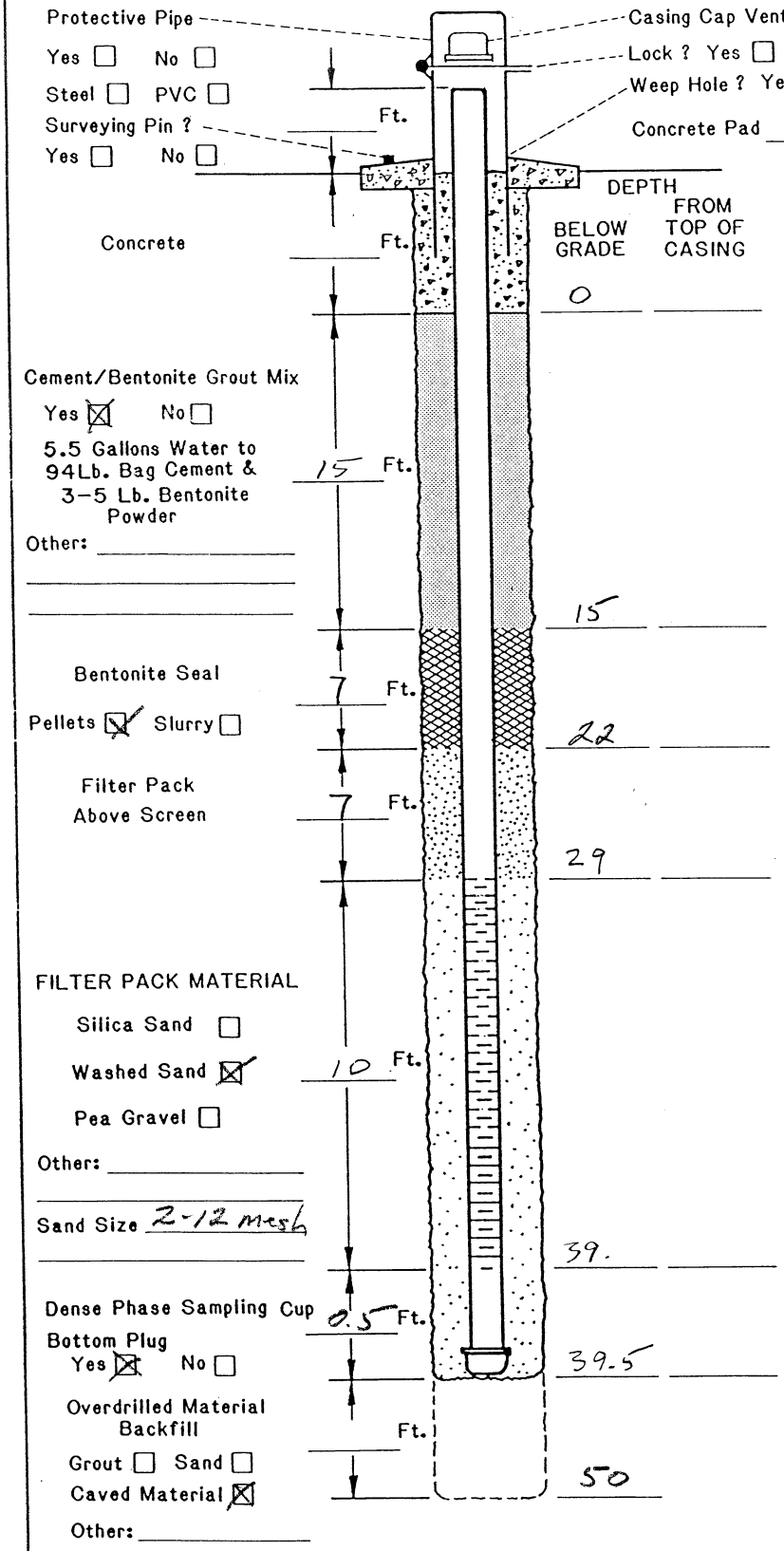
DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY · SILT · SAND · GRAVEL · SILTY CLAY · CLAYEY SILT · DEBRIS FILL · HIGHLY ORGANIC (PEAT) · SANDY CLAY · CLAYEY SAND

DATE DRILLED	5-15-00
PAGE	2 of 2
DRILLING METHOD	HSA
DRILLED BY	Compliance
LOGGED BY	ED KRISH
EXISTING GRADE ELEVATION (FT AMSL)	
LOCATION OR GRID COORDINATES	

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM



FLUSH MOUNT

DRILLING INFORMATION:

1. Borehole Diameter= 8 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 _____ 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: 0.020
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 ?
   _____ / 60 Minutes/Hours
3. Approximate Water Volume Removed ? _____ 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 6 Ft. Date 5-15-00

Before Development 2.89 Ft. Date 5-16-00

After Development _____ Ft. Date _____

Driller/Firm COMPLIANCE Drill Rig Type Mobile B-59 Date Installed 5-15-00

Drill Crew WELL1 Well No. PC 96 Kerr-McGee Hydrologist ED KRISH

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON, NV	BORING NUMBER PC97

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	0-5 Berm material brn silty gravelly SAND		SW							damp @ 3'
5	5-20 silty gravelly SAND, pale brn (5YR5/2) 10% silt, 25% volc granules and sm pebbles up to 1" diam Sand is vf-vc, SA-SR		SW							▽ @ 6'
10										
15										
20	20-25 silty SAND w/ minor gravel. pale yell brn (10YR 6/2). Silt up to 25%, gravel (gran. + pea size up to 20%. Sand as above... vf-vc, SR-SA.		SM							
25	25-36 silty sdy GRAVEL pale yell brn (10YR 6/2). 25% silt, 25% vf-vc, SA-SR Gravel 50%, SR-SA, granules and pebbles to 2" diam locally com caliche cement		GW							
30										
36	36-42 silty SAND pale yell brn (10YR6/2) bimodal: vf-fg w/ com.		SM							

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	PAGE
5-16-00	1 of 2

DRILLING METHOD: HSA

DRILLED BY: Compliance

LOGGED BY: ED KRISH

EXISTING GRADE ELEVATION (FT AMSL)

LOCATION OR GRID COORDINATES

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON NV	BORING NUMBER PC97

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
42	c-vc, SR, sand. 25% silt in matrix. Calcareous		SM							
43	42-43 silty gravelly SAND pale yell brn. Gravels up to 3/4" diam w/ minor caliche cement, calcareous		SW							dense + dry
45	43-45 cly sdy SILT lt grn gry (5GY 8/1), 10-20% clay in matrix, 10-20% vf-fg sand. Calcareous, w/ minor sm. caliche nodules		ML-CL							MC @ 43
	TD 45'									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL; AUGER; ROCK CORE; THIN-WALLED TUBE; CONTINUOUS SAMPLER; NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

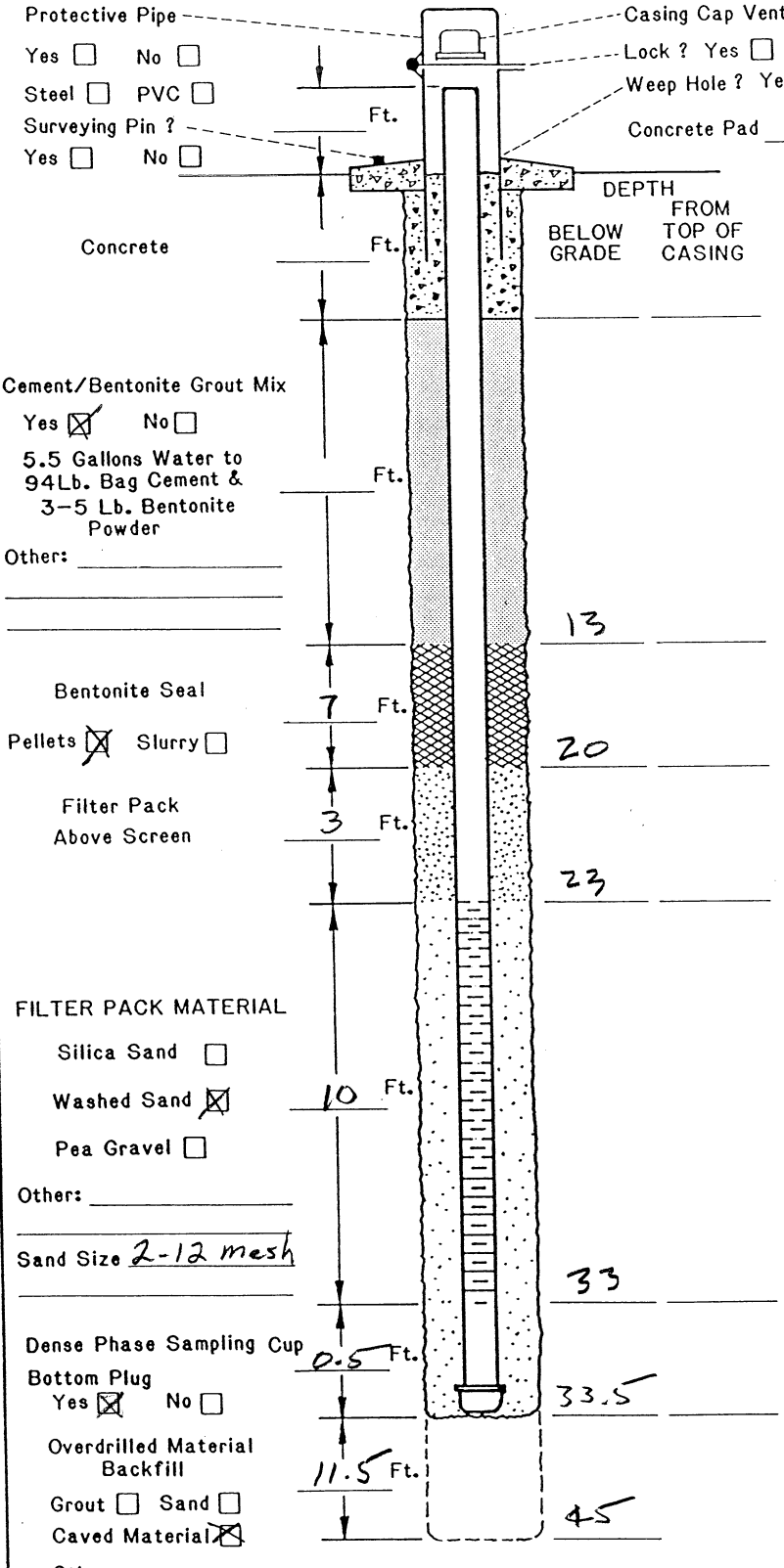
GRAPHIC LOG LEGEND

CLAY; SILT; SAND; GRAVEL; SILTY CLAY; CLAYEY SILT; DEBRIS FILL; HIGHLY ORGANIC (PEAT); SANDY CLAY; CLAYEY SAND; _____; _____

DATE DRILLED	PAGE
5-16-00	2 of 2
DRILLING METHOD: HSA	
DRILLED BY: Compliance	
LOGGED BY: ED KRISH	
EXISTING GRADE ELEVATION (FT AMSL)	
LOCATION OR GRID COORDINATES	

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM

FLUSH MOUNT



DRILLING INFORMATION:

1. Borehole Diameter= 8 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 _____ 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: 0.020
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 ?
   _____ / 60 Minutes / Hours
3. Approximate Water Volume Removed ? _____ 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 6' Ft. Date 5-16-00

Before Development 0.26' Ft. Date 5-17-00

After Development _____ Ft. Date _____

Driller/Firm COMPLIANCE Drill Rig Type Mobile B-29 Date Installed 5-16-00

Drill Crew WELLS Well No. PC 97 Kerr-McGee Hydrologist ED KRISH

P.A 6/03

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON, NV	BORING NUMBER PC 100

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
5	0-18 gravelly SAND, mod yell brn (10YR5/4). 10% silt, 25% volc granules & sm pebbles up to 1"		SW							
10										
15										damp @ 16'
20	18-29 silty sdy GRAVEL lt brn (5YR5/4). 20-25% silt, 20-25% poorly sorted, SA-SR, vf-vc sd 50% volc granules and pebbles to 3" Locally hard thin calichified zones		SW							
25										▽ @ 25'
29	29-36 silty SAND, lt. yell brn (10YR 6/4). vf-fg w/com m-cg, SR-SA, 25-30% silt. Very calcareous. Minor m-vc size caliche nodules		SM							
36	36-45 silty grav SAND, mod yell brn (10YR 5/4) 25% silt, 25% volc granules		SW							

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL · AUGER · ROCK CORE · THIN-WALLED TUBE · CONTINUOUS SAMPLER · NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY · SILT · SAND · GRAVEL · SILTY CLAY · CLAYEY SILT · DEBRIS FILL · HIGHLY ORGANIC (PEAT) · SANDY CLAY · CLAYEY SAND

DATE DRILLED	PAGE
5-18-00	1 of 2
DRILLING METHOD: HSA	
DRILLED BY: Compliance	
LOGGED BY: ED KRISH	
EXISTING GRADE ELEVATION (FT AMSL)	
LOCATION OR GRID COORDINATES	

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON, NV	BORING NUMBER PC 100

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
	and sm pebbles; vf-vc sd		SW							
	42-45 silty gravelly SAND, gry oran pink (5YR 6/2) 10% clay, 20% silt, 20% volc & ls granules to 1/8"-1/2" dissem throughout Very calcareous w/minor sm. caliche nodules									MC not reached
45	TD 45'									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL · AUGER · ROCK CORE · THIN-WALLED TUBE · CONTINUOUS SAMPLER · NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY · SILT · SAND · GRAVEL · SILTY CLAY · CLAYEY SILT · DEBRIS FILL · HIGHLY ORGANIC (PEAT) · SANDY CLAY · CLAYEY SAND

DATE DRILLED	PAGE
5-18-00	2 of 2

DRILLING METHOD: HSA

DRILLED BY: Compliance

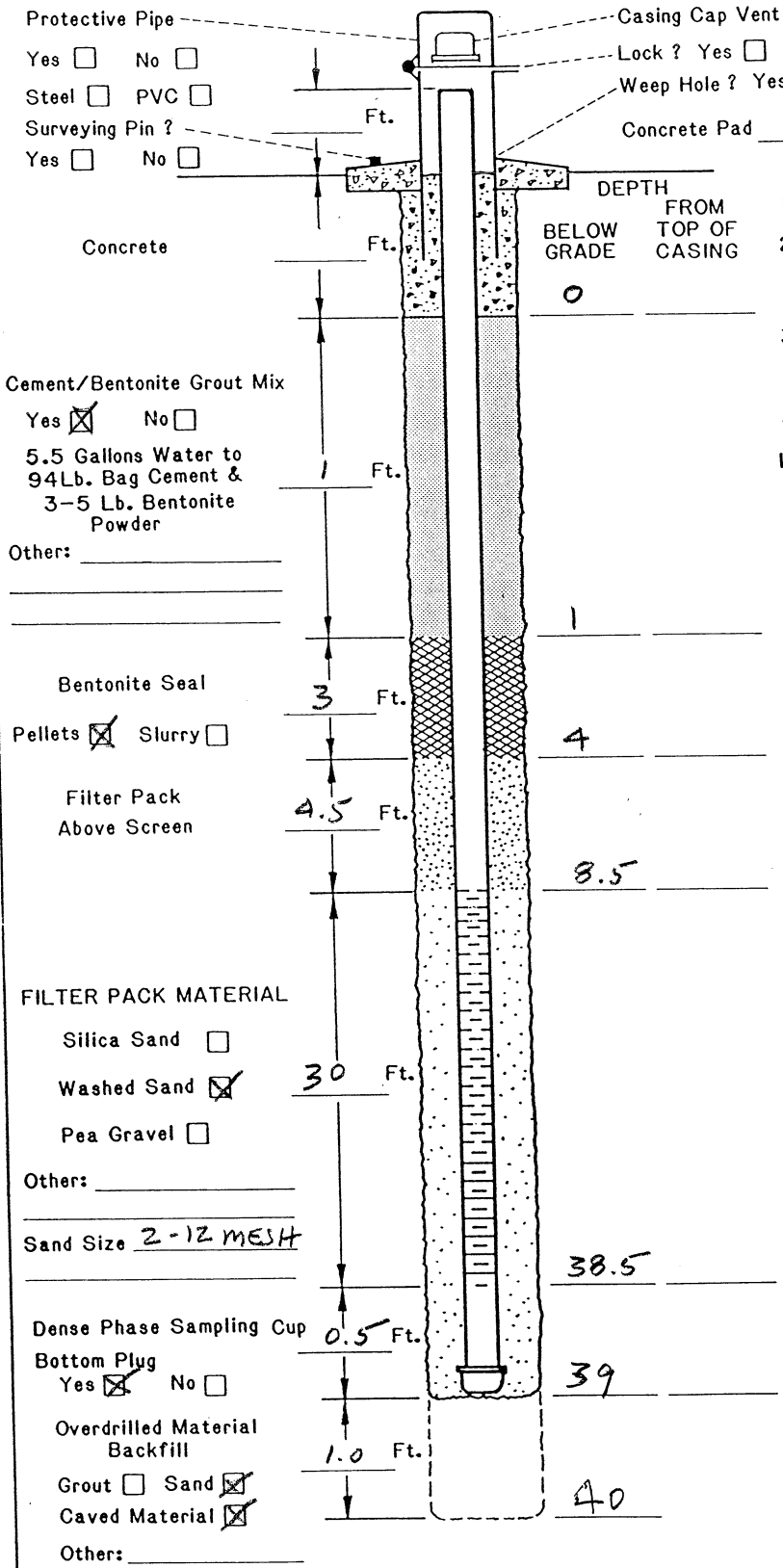
LOGGED BY: ED KRISH

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM

FLUSH MOUNT



DRILLING INFORMATION:

1. Borehole Diameter= 8 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 _____ 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: 0.020
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 ?
   _____ / 60 (Minutes)/Hours
3. Approximate Water Volume Removed ? _____ 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 25 Ft. Date 5-18-00

Before Development 14.03 Ft. Date 5-19-00

After Development _____ Ft. Date _____

Driller/Firm COMPLIANCE Drill Rig Type Mobile B-59 Date Installed 5-18-00

Drill Crew LOYA Well No. PC 100 Kerr-McGee Hydrologist ED KRISH

P-A 6/03

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY: KMC LLC	LOCATION: Henderson, NV	BORING NUMBER: PC 100R

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
4	0-4 gravelly SAND, gry brn w/ 10-15% silt, 20-30% volc granules to pea gravel. vf-vc SA sd		SW							start drilling @ 8:30 am finish @ 9:00
7	4-7 SAND, gry brn w/ 10% silt and 5-10% v. sm granules to 1/10". f-vc, SA-SR sand.		SW							
9	7-9 sdy GRAVEL, brn, A-SA to 1". 30-35% vf-vc sand		GW							
11	9-11 SAND, brn, w/ 10% silt + 5-10% v. sm gran. f-vc, SA sand		SW							damp @ 12'
15	11-25 sdy GRAVEL brn w/ 5-10% silt + 25-30% vf-vc, SR-SA sd. Grav. up to 2" (ave 1/10"-3/4") volc w/ minor caliche coatings		GW							▽ @ 18'
20										
25	25-27 SAND brn, mod silty (15-20%). Calcareous. w/ 10-15% sm volc granules vf-vc, SA-SR		SW							
27	27-30 sdy GRAVEL, brn, volc up to 2" (ave 3/4") clean, vf-vc sd		GW							
30	30-35 SAND, brn, vf-c w/ minor vc, SA-SR. 10-15% silt, calcareous		SW							
35	35-38 silty SAND / sdy SILT varamts of silt in vf-fg SA-SR sd		SM							
38			GM/SM							

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL; AUGER; ROCK CORE; THIN-WALLED TUBE; CONTINUOUS SAMPLER; NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY; SILT; SAND; GRAVEL; SILTY CLAY; CLAYEY SILT; DEBRIS FILL; HIGHLY ORGANIC (PEAT); SANDY CLAY; CLAYEY SAND; _____; _____

DATE DRILLED	PAGE
8-16-00	1 of 2

DRILLING METHOD: PERCUSSION
DRILLED BY: LAYNE
LOGGED BY: ED KRISH
EXISTING GRADE ELEVATION (FT. AMSL):
LOCATION OR GRID COORDINATES:

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON, NV	BORING NUMBER PC100R

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
40.5	38-40.5 gravelly silty SAND, brn, 20-25% silt and 10-20% volc sm granules. SA-SR vf-vc sd.		CL							MC @ 40.5'
45	40.5-41.5 Ltgrn slty CLAY w/ gyp xtals									
	TD 41.5'									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED: 8-16-00 | PAGE: 2 of 2

DRILLING METHOD: PERCUSSION

DRILLED BY: LAYNE

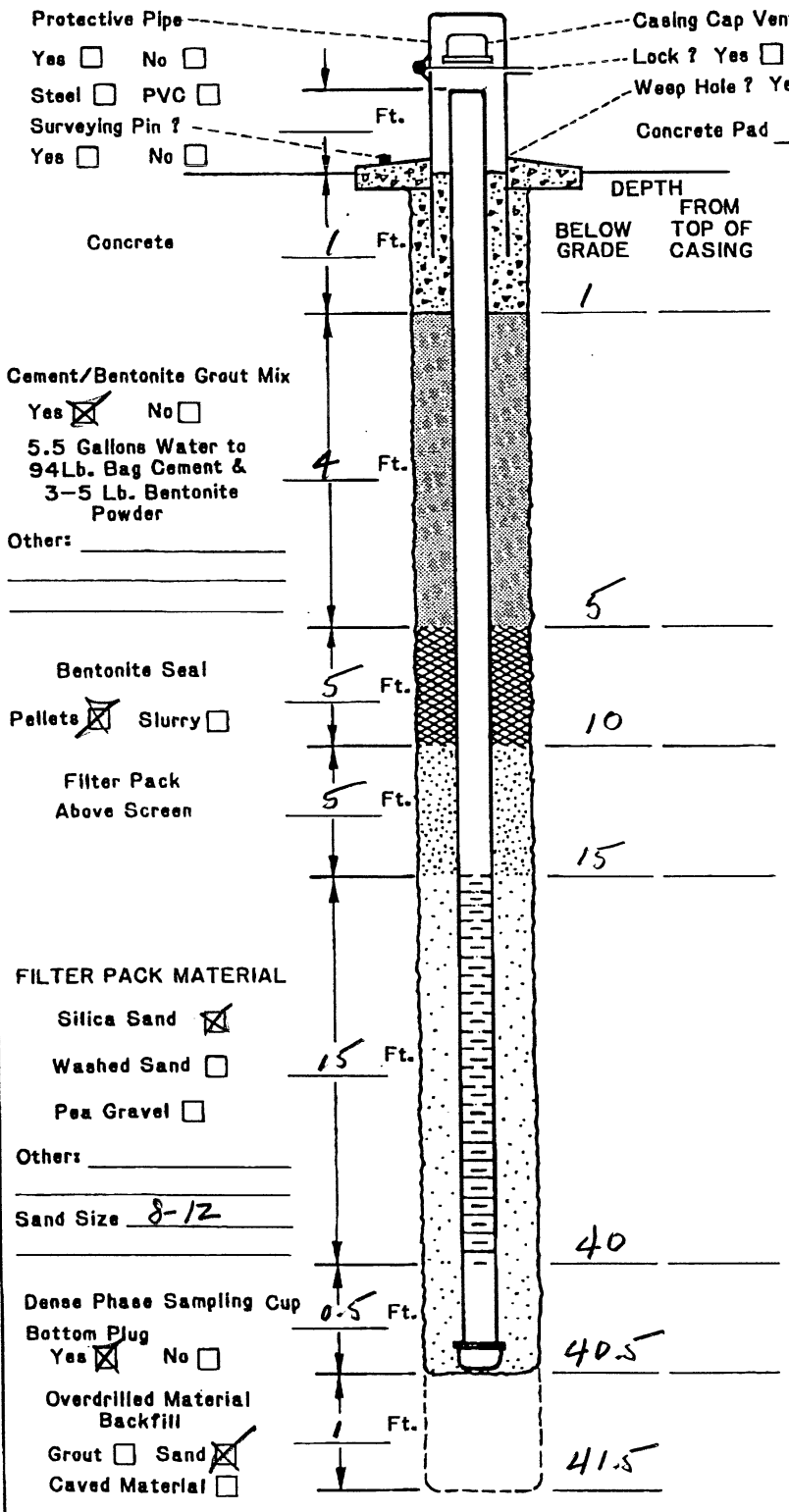
LOGGED BY: ED KRISH

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM

FLUSH MOUNT



DRILLING INFORMATION:

1. Borehole Diameter= 9 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 _____ 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: 0.040
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 ?
   2 / _____ ~~Minutes~~/Hours
3. Approximate Water Volume Removed ? _____ 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 Pesticide
7. Did Water have any Color ? Yes ☒ No ☒
   If Yes , Describe _____

WATER LEVEL INFORMATION:

Water Level Summary (From Top of Casing)

During Drilling 18' Ft. Date 8-16-00
Before Development _____ Ft. Date _____
After Development 13.64 Ft. Date 8-17-00

Driller/Firm HORMANN/LAYNE Drill Rig Type AP-1000 Date Installed 8-16-00
Drill Crew _____ Well No. PC 100R Kerr-McGee Hydrologist Ed Krish

P 1 of 2 6/03

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON, NV	BORING NUMBER PC 101

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
5	0-15 gravelly SAND. lt brn (5YR 5/4). 10% silt in sd matrix. Sand is poorly sorted, A-SR, vf-vc. 15-20% volc granules and sm pebbles to 3/4", A-SA Locally com. caliche cement		SW							30 FT N30E OFFSET TO PC-70
10										
15	15-25 sdy GRAVEL lt brn (5YR 5/4) 50% volc granules and pebbles to 3". A-SR. locally hard thin calichified zones. 10-20% silt in sd matrix poorly sorted, vf-vc, SA-SR		GM							damp @ 17'
20										
25	25-50 silty gravelly SAND, mod yell brn (10YR 6/4). 10-20% silt in vf-vc, SR-SA sd matrix 30% volc granules and sm pebbles ave. to 1" but w/ minor pebbles to 3". Very calcareous. Locally hard caliche cemented *Probably alternating fining upward fluvial sequences (ie grav. → silt)		SW							▽ @ 25'
30										
35										

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	PAGE
5-18-00	1 of 2
DRILLING METHOD: HSA	
DRILLED BY: Compliance	
LOGGED BY: ED KRISH	
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON, NV	BORING NUMBER PC 101

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
45	48-50 hard, calichified gravelly SAND. Com. $CaCO_3$ cement but still porous.		SW							
50	50-52 silty CLAY, lt grn gry (5GY 8/1). non-calcareous. sticky dense, dry. Minor gypsum xtals.		CL							MC @ 50'
52	52' TD									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL · AUGER · ROCK CORE · THIN-WALLED TUBE · CONTINUOUS SAMPLER · NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY · SILT · SAND · GRAVEL · SILTY CLAY · CLAYEY SILT · DEBRIS FILL · HIGHLY ORGANIC (PEAT) · SANDY CLAY · CLAYEY SAND

DATE DRILLED	PAGE
5-12-00	2 of 2

DRILLING METHOD: HSA

DRILLED BY: Compliance

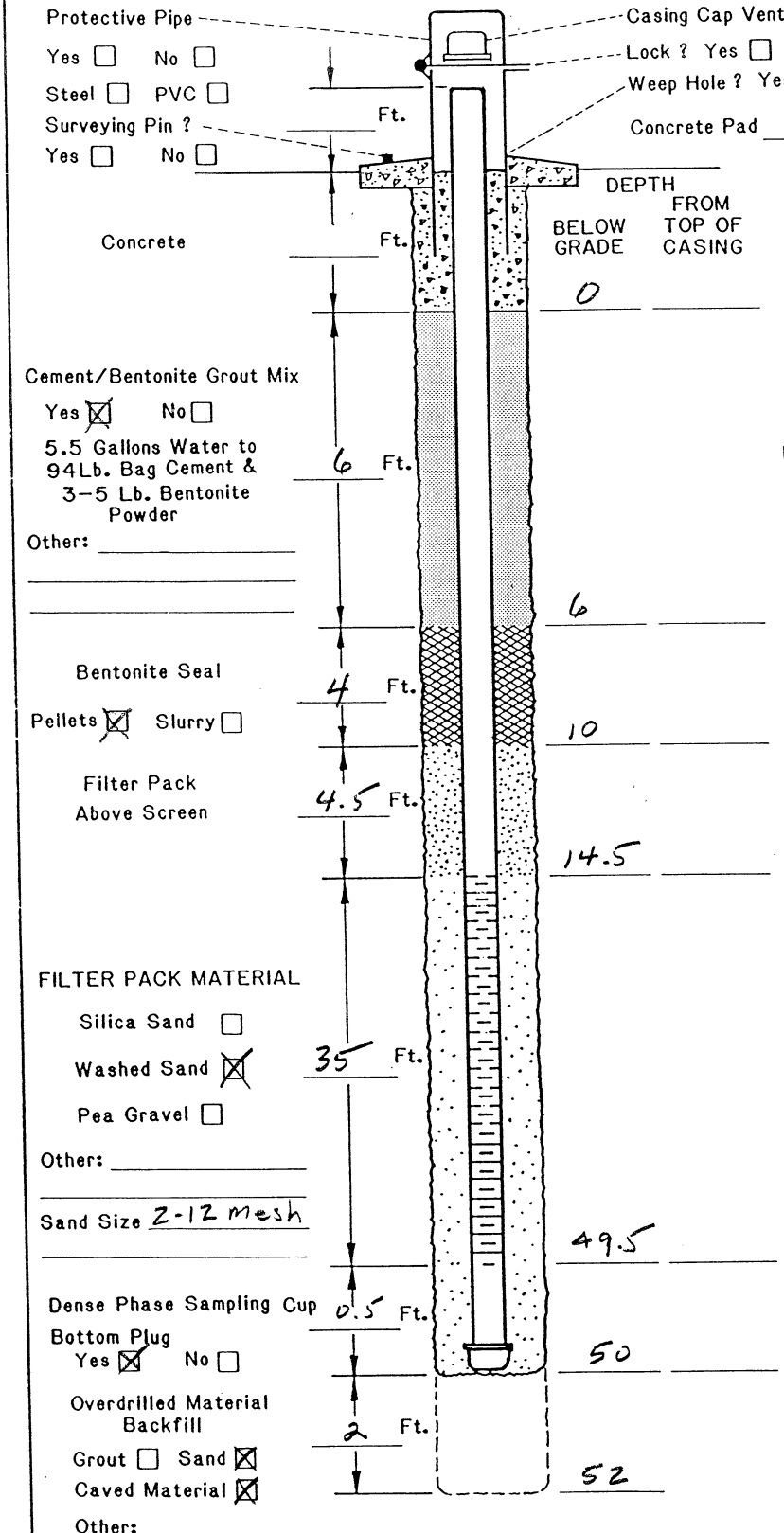
LOGGED BY: ED KRISH

EXISTING GRADE ELEVATION (FT AMSL):

LOCATION OR GRID COORDINATES:

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM

FLUSH MOUNT



DRILLING INFORMATION:

1. Borehole Diameter= 8 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 ____ 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: 0.020
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 ?
   ____ / 60 Minutes / Hours
3. Approximate Water Volume Removed ? ____ 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 25 Ft. Date 5-18-00
Before Development 19.01 Ft. Date 5-19-00
After Development ____ Ft. Date ____

Driller/Firm COMPLIANCE Drill Rig Type Mobile B-59 Date Installed 5-18-00

Drill Crew LUYA Well No. PC 101 Kerr-McGee Hydrologist ED KRISH

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON, NV	BORING NUMBER PC 101 R

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	0-5 sdy GRAVEL gry brn, volc, 25-30% SA, vf-vc sd in granule-pea gravel to 3/4", w/ 10-20% silt		GW							start hole @ 1PM, end 1:45 PM
5	5-10 grav. silty SAND gry brn, 20-30% silt, 20-30% granules/sm pea gravel in vf-vc, SA sd. 9'-10' calichified		GM/SM							
10	10-26 sdy GRAVEL brn to gry brn, 25-30% vf-vc, SA sand w/ var. amts of thin (2-3") silt-rich layers. Gravel is volc granule-pea gravel size up to 3/4", A-SA		GW							damp @ 14' WTR @ 20'
20	20'-22' 70% f-vc sd w/ 30% granules									
25	22'-23' volc cobble layer up to 4"									
26	23'-26' HARD, calichified sd and granules		SM							
30	26-30 silty SAND, brn, 20-25% silt in f-vc SA-SR sand w/ 10-15 1/0" granules		GW							
	30-38 sdy GRAVEL, brn. Coarsens downward. Sandier (60%) [30'-34'] on top... vf-vc, SR-SA w/ granules grading down to sdy pea gravel. 37'-38' 1"-4" cobbles		GM/SM							
38										

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- ☐ _____
- ☐ _____

DATE DRILLED	PAGE
8-16-00	1 of 2
DRILLING METHOD: PERCUSSION	
DRILLED BY: LAYNE	
LOGGED BY: ED KRISH	
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON, NV	BORING NUMBER PC 101 R

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
43	38-40 silty gravelly SAND, gry brn. 20-25% silt and 20% volc granules to 1/4" SA-SR, in vf-vc SR sand		GM/SM							
47	40-43 sdy GRAVEL, gry brn, 25-30% vf-vc, SR sd in gran./pea grav to 1/2" w/ minor 1"-2"		GW							
51	43-47 silty gravelly SAND, brn, 20-25% silt, 20-25% gran. to 1/4" in vf-vc SR sd		GM/SM							Muddy Creek @ 51'
	47-51 sdy GRAVEL, brn 25% vf-vc SR sd in gran/pea gravel, SR-SA, to 1/2" 49-51 hard calichified		CL/ML							
	51-51.5 cly SILT/silty CLAY, lt grn, minor root traces, sp. gypsum xtals									
	51.5' TD									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL; AUGER; ROCK CORE; THIN-WALLED TUBE; CONTINUOUS SAMPLER; NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

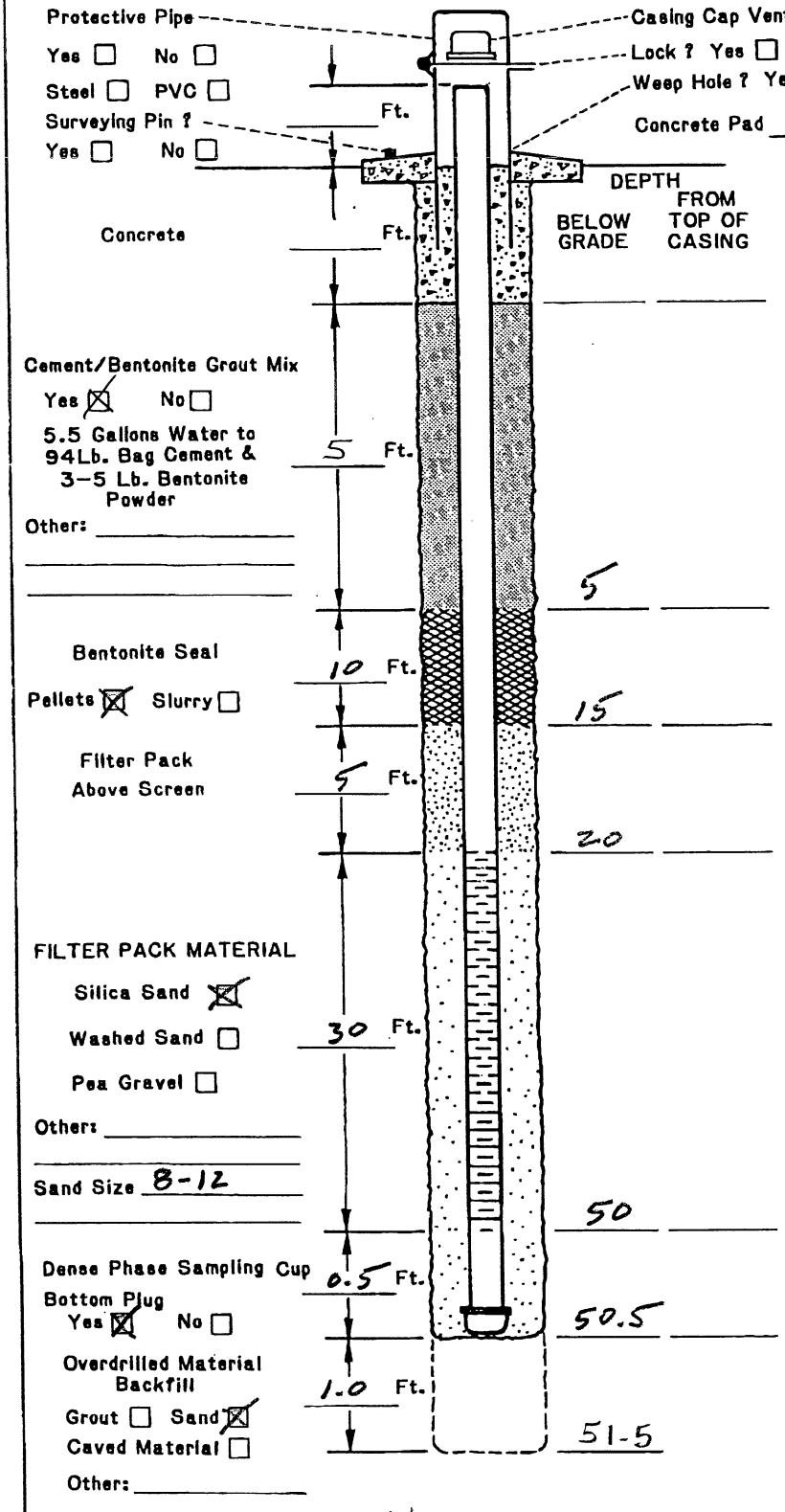
CLAY; SILT; SAND; GRAVEL; SILTY CLAY; CLAYEY SILT; DEBRIS FILL; HIGHLY ORGANIC (PEAT); SANDY CLAY; CLAYEY SAND; _____; _____

DATE DRILLED	PAGE
8-16-00	2 of 2

DRILLING METHOD: PERCUSSION
DRILLED BY: LAYNE
LOGGED BY: ED KRISH
EXISTING GRADE ELEVATION (FT. AMSL):
LOCATION OR GRID COORDINATES:

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM

FLUSH MOUNT



DRILLING INFORMATION:

1. Borehole Diameter= 9 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 _____ 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: 0.040
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 ?
   1 hr / 45 min Minutes/Hours
3. Approximate Water Volume Removed ? _____ Gallons
4. Water Clarity Before Development ? Clear ☐
   Turbid ☒ Opaque ☐
5. Water Clarity After Development ? Clear ☐
   Turbid ☒ Opaque ☐
6. Did Water have Oder ? Yes ☒ No ☐
   If Yes, Describe organics
7. Did Water have any Color ? Yes ☒ No ☐
   If Yes , Describe whitish

WATER LEVEL INFORMATION:

Water Level Summary (From Top of Casing)

During Drilling 20 Ft. Date 8-16-00
Before Development _____ Ft. Date _____
After Development 19.54 Ft. Date 8-18-00

Driller/Firm Harmann / Layne Drill Rig Type AP-1000 Date Installed 8-16-00
Drill Crew _____ Well No. PC 101R Kerr-McGee Hydrologist ED KRISH

P-A 6/03

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON, NV	BORING NUMBER PC 102

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
	0-8 GRAVEL, gry brn, sl. sdy (10-15) m-vc & sl slty (10%). Grav. up to 4", ave 1/2"		GP							start 11AM, finish 11:30 am wet @ 0' WTR @ 2'
8	8-14 slty SAND & slty sdy GRAVEL, interbedded		SM/GM							dry 8-9' wet @ 9'
	8-9 brn, slty (40%) vf-f sd									
	9-11 brn slty sdy gravel, 30% silt, 20% f-c sd, 50% pea gravel to 1"									
14	11-14 brn, slty vf-f sd		ML/SM							
19	14-19 sdy SILT and slty SAND, interbedded, brn to ltgrnish brn. vf-f sd		GW							
22	19-22 sdy GRAVEL, gry brn, 30-40% vf-vc, A-SR sd in gran./pea gravel, SR-R, to 1/2" (vol/c)		SM							
24	22-24 slty SAND, brn 30% silt in vf-fg sd		GM/SM							
28	24-28 slty sdy GRAVEL, dec silt from 30% @ 24 to 15% @ 28'. brn, f-mw/cg SR sd in pea grav/gran to 1/2-3/4"		GW							
	28-36 sdy GRAVEL, gry brn & whtish. Contains abu lg. gravels. 20-30% f-vc; SR sd in gran/pea gravel ave 1" w/ up to 6" locally		GM/SM							
36			GW							
39										

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	PAGE
8-17-00	1 of 2

DRILLING METHOD: PERCUSSION

DRILLED BY: LAYNE

LOGGED BY: ED KRISH

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY: KMC LLC	LOCATION: HENDERSON, NV	BORING NUMBER: PC 102

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
45	28-30 volc, no ls. below 30'... 50/50 volc & ls. @33' cobbles to 4" @36' cobbles to 6"		GW							
50	36-39 silty sdy GRAVEL gry brn & whtish. Com ls. gran/pea gravel contains 20-30% silt & 20-30% f-vc SR sd 38-39 volc cobbles to 6"		GM/SM							Did not reach Muddy Creek
	39-50 sdy GRAVEL, gry wht + brn, SR, gravels of ls + volc to 2-3". w/ 20-30% f-vc, SR sd. Locally caliche conted. @47-49 com silt in matrix to 25-30% no hard caliche like in PC 99R									
	TD @ 50'									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED: 8-17-00 PAGE: 2 of 2

DRILLING METHOD: PERCUSSION

DRILLED BY: LAYNE

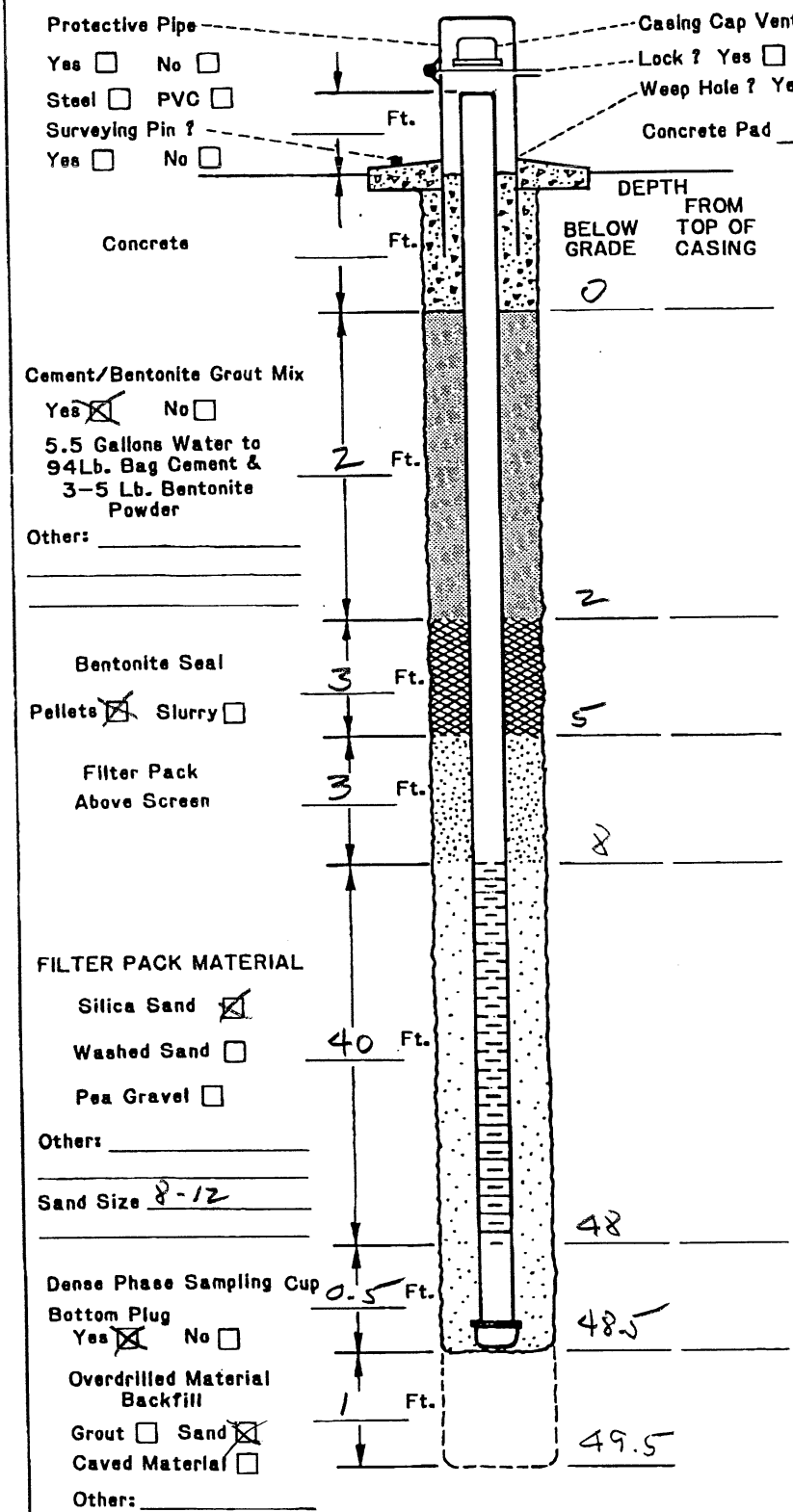
LOGGED BY: ED KRISH

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM

FLUSH MOUNT



DRILLING INFORMATION:

1. Borehole Diameter= 9 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 _____ 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: 0.040
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 ?
   2 hr / 20 Minutes/~~Hours~~
3. Approximate Water Volume Removed ? _____ 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 lt brn (silt)

WATER LEVEL INFORMATION:

Water Level Summary (From Top of Casing)

During Drilling 2 Ft. Date 8-17-00
Before Development _____ Ft. Date _____
After Development 0.81 Ft. Date 8-18-00

Driller/Firm HORMANN/LAYNE Drill Rig Type AP 1000 Date Installed 8-17-00
Drill Crew _____ Well No. PC 102 Kerr-McGee Hydrologist ED KRISH

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION Henderson NV	BORING NUMBER PC 103

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
	0-6 BERM. Com construction material									
6	6-10 SAND, gravelly, brn (5YR 5/4), 10-20% volc pea grav to 1/4" in vf-vc, A-SR sd		SW							
10	10-17' GRAVEL, sdy, silty, brn, 10-20% silt & 20-30% vf-vc, SA-SR sd in volc gravel to 1". Sl. calcareous. [Prob. series of fining-up. alluvial beds]		GM							damp @ 14'
15	16-17' Gravel to 4"									▽ WTR @ 17'
17	17-29 Gravel, sl. sdy tr silt. 10-15% vf-vc sd, A-SR, volc SA-SR pea gravel to 1/2" w/ local thin beds up to 4"		GP							
20										
25	25'-28' com lg volc gravel to 4"									
	28-29' gravel w/ 20-30% silt in matrix									
30	29-30' CLAY, silty & CLAY, lt grngry (5GY 8/1), 10-20% silt in matrix, non-calcareous, tr-sp gypsum		CL							MC @ 29'
	TD 30'									

EXPLANATION

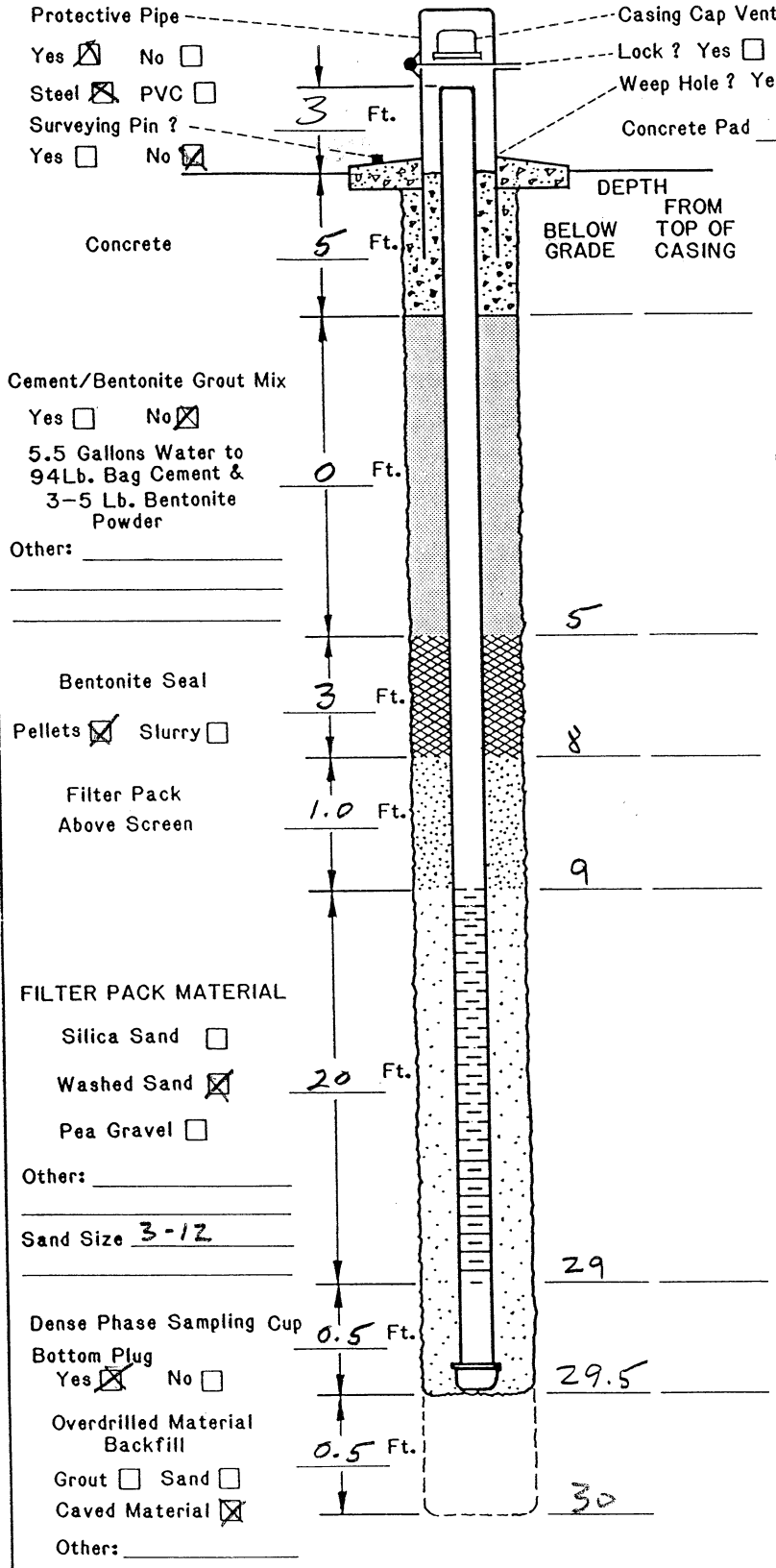
- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
  - SPLIT-BARREL
  - AUGER
  - ROCK CORE
  - THIN-WALLED TUBE
  - CONTINUOUS SAMPLER
  - NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	2-3-01
PAGE	1 of 1
DRILLING METHOD	PERCUSSION
DRILLED BY	LAYNE
LOGGED BY	Ed KRISH
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM



DRILLING INFORMATION:

1. Borehole Diameter= 9 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 ____ 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: 0.020
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 ?
   ____ / ____ Minutes/Hours
3. Approximate Water Volume Removed ? ____ 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 17 Ft. Date 2-3-01
Before Development ____ Ft. Date ____
After Development ____ Ft. Date ____

Driller/Firm LAYNE Drill Rig Type AP-1000 Date Installed 2-3-01
Drill Crew Perry Well No. PC-103 Kerr-McGee Hydrologist Ed Krish

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION Henderson, NV	BORING NUMBER PC 104

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
	0-6 Berm Material sdy, gravelly mix									
6	6'-21' SAND, gravelly & silty. Brn (5YR 5/4). 10-20% silt in sd matrix of f-c g w/ m mor vcg, SA-SR, 20-30% SA-SR, volc pea gravel to 3/4" w/ locally thin zones to 2". Non-calcareous. 6'-12' com gravel to 2"		SW							
10										
15										
21	21-35 GRAVEL & sdy GRAVEL, interbedded, brn (5YR 5/4). Volc clasts up to 1" except locally to 5", SA-SR, contains var. amts of vf-VC, SA-SR sd. tr silt 23-26' com lg gravel to 4" 29-30 silty gravelly SAND vf-vc w/ 20-30% silt 34-35' com lg gravel to 5"		GP/GM							damp @ 21' wet @ 22'
25										
30										
35										
36	35-36' CLAY, silty, gry yel/grn (5GY 7/2). 10-20% silt in matrix, non-calcareous. Tr-sp gypsum TD @ 36'		CL							MC @ 35'

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	PAGE
2-3-01	1 of 1

DRILLING METHOD: PERCUSSION

DRILLED BY: LAYNE

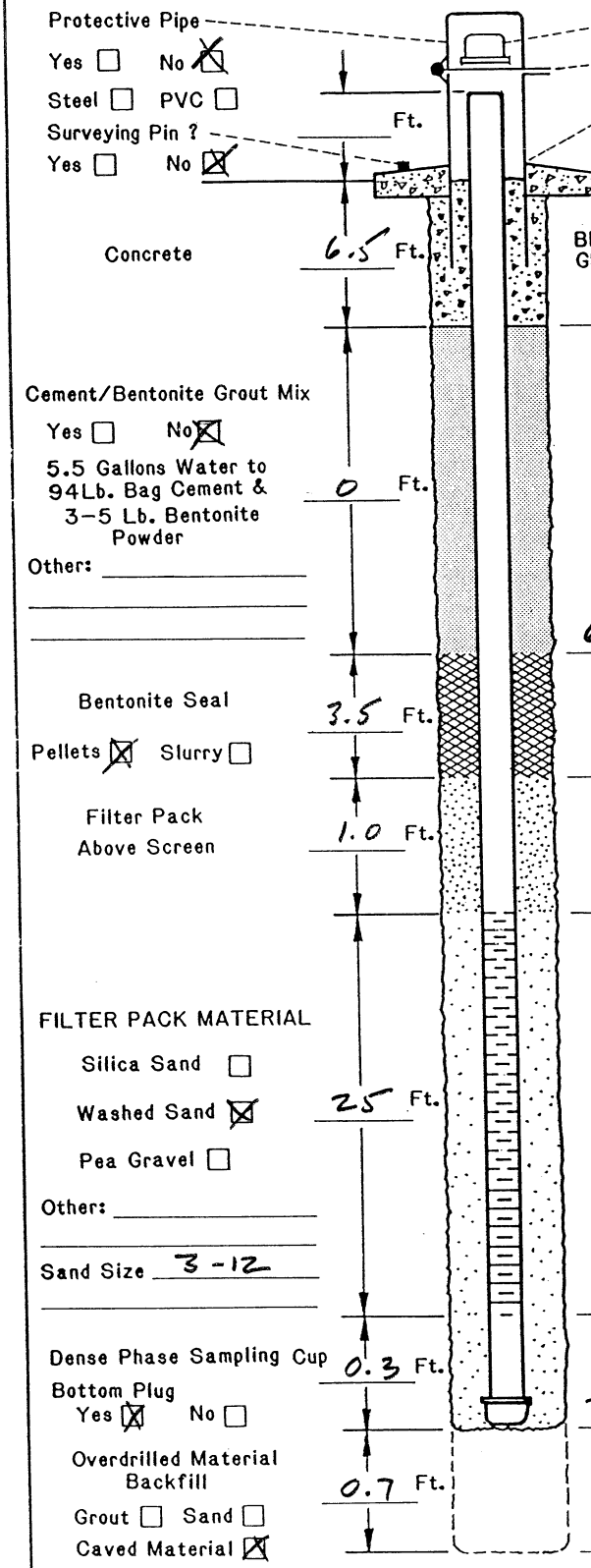
LOGGED BY: Ed Krish

EXISTING GRADE ELEVATION (FT AMSL):

LOCATION OR GRID COORDINATES:

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM

FLUSH MOUNT



Protective Pipe — Yes ☐ No ☒ — Steel ☐ PVC ☐

Surveying Pin ? Yes ☐ No ☒

Casing Cap Vent ? Yes ☒ No ☐

Lock ? Yes ☐ No ☒

Weep Hole ? Yes ☐ No ☒

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

		DEPTH BELOW GRADE	DEPTH FROM TOP OF CASING
	Ft.		
Concrete	6.5 Ft.		
		6.5	
Cement/Bentonite Grout Mix — Yes ☐ No ☒ — 5.5 Gallons Water to 94Lb. Bag Cement & 3–5 Lb. Bentonite Powder — Other: _____	0 Ft.		
Bentonite Seal — Pellets ☒ Slurry ☐	3.5 Ft.	9	
Filter Pack Above Screen	1.0 Ft.	10	
FILTER PACK MATERIAL — Silica Sand ☐ — Washed Sand ☒ — Pea Gravel ☐ — Other: _____ — Sand Size 3-12	25 Ft.	35	
Dense Phase Sampling Cup — Bottom Plug Yes ☒ No ☐	0.3 Ft.	35.3	
Overdrilled Material Backfill — Grout ☐ Sand ☐ — Caved Material ☒ — Other: _____	0.7 Ft.	36	

DRILLING INFORMATION:

1. Borehole Diameter= 9 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 _____ 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: 0.020
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 ? _____/_____ Minutes/Hours
3. Approximate Water Volume Removed ? _____ 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 22 Ft. Date 2-3-01

Before Development _____ Ft. Date _____

After Development _____ Ft. Date _____

Driller/Firm Layne — Drill Rig Type AP-1000 — Date Installed 2-3-01

Drill Crew Perry — Well No. PC-104 — Kerr–McGee Hydrologist Ed Krish

P-A 6/03

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION Henderson, NV	BORING NUMBER PC 105

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
	0-5 Disturbed fill material, local origin									
5	5-11 SAND, gravelly, brn (5YR 5/4). vf-vc w/ 20-30% pea gravel to 1/2" sl-mod calcareous		SW							
11	11'-37' GRAVEL, sdy yellow brn (10YR 5/2). 20-40% vf-vc, SA-SR sd matrix to volc & minor ls pea gravel 1/2"-1". Locally com thin gravel beds up to 6". Hard and cemented. Com calichification. sp-mod silica cement		GW							damp @ 13' WTR @ 16'
30	11-12 com lg gravel to 6" 12-15' 50% sd and 20% silt in matrix									
35										
37	37-42' SAND, silty, pale yell brn (10YR 6/2). vf-fg, SA-SR w/ 20-30% silt. Calcareous		SM							

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	PAGE
2/4/01	1 of 2
DRILLING METHOD: Percussion	
DRILLED BY: Layne	
LOGGED BY: Ed Krish	
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION Henderson NV	BORING NUMBER PC 105

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
42			SM							
	42-46 SILT, brn (5YR 5/4) locally 10-20% vfg, SA sd in matrix, non-calcareous		ML							MC @
46	46-50 GRAVEL, pale yell brn (10YR 6/2). 10% vf-vc SA sd in volc pea gravel to ½" w/ minor 2-3". sl. calcareous									
50	50-63 SILT w/ minor sdy SILT, interbedded. gry oran (10YR 7/4) and dk gry oran (10YR 6/4). 10-20% vfg A-SA sd in silt locally. Mod scattered blk organics and sp-mod gypsum. sl-mod calcareous @ 50' v. thin bed of lt. grn gry silty clay		ML							MC @ 50'
63										
64	63-64 Clay w/ minor silty clay, lt grn gry (5GY 8/1). Non-calcareous, mod-com organics (grass blades). Tr. ash clasts. Tr gypsum		CL							
	TD 64'									

EXPLANATION

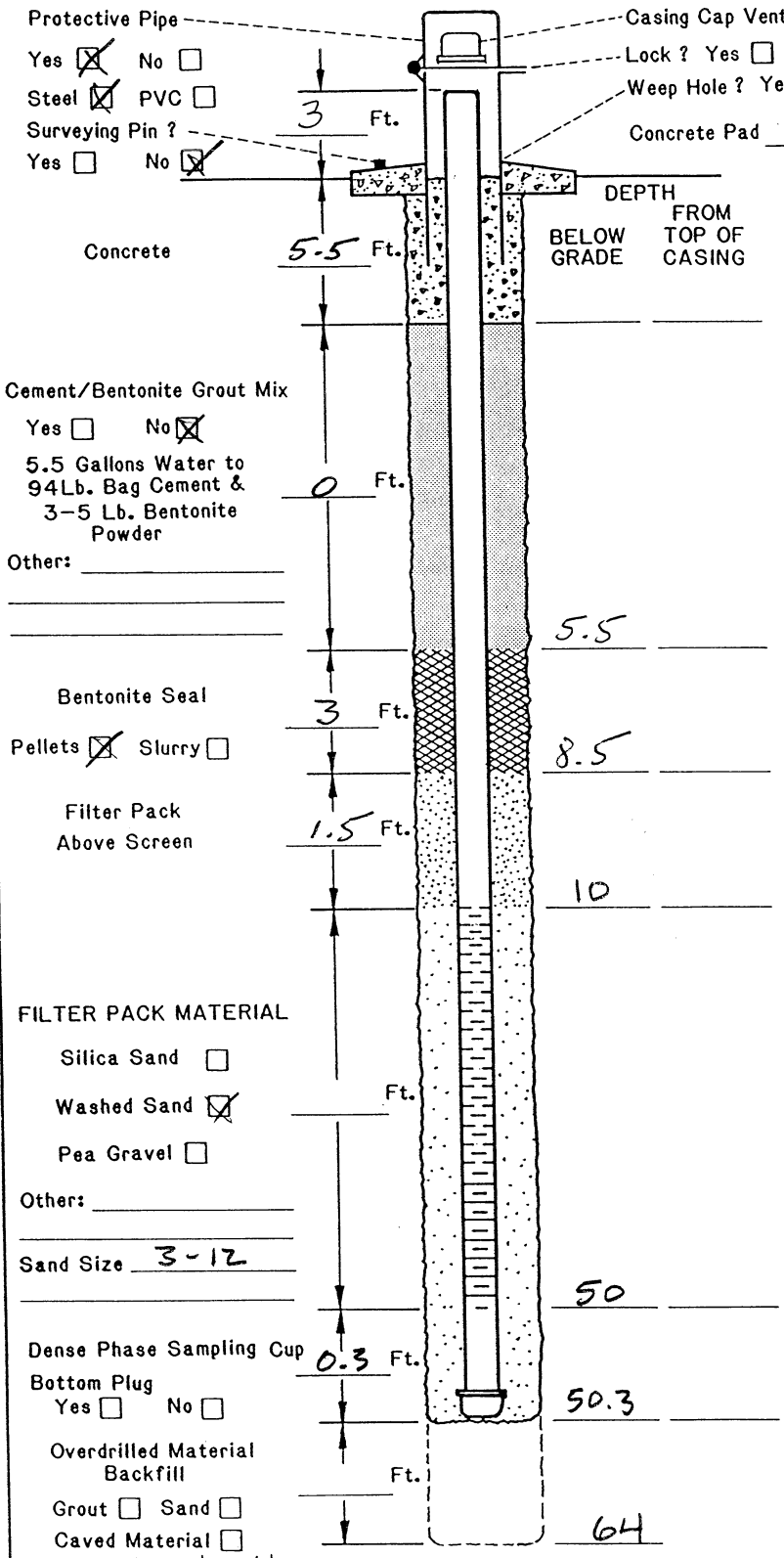
- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	PAGE
2-4-01	2 of 2
DRILLING METHOD: PERCUSSION	
DRILLED BY: LAYNE	
LOGGED BY: Ed Krish	
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM



DRILLING INFORMATION:

1. Borehole Diameter= 9 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 _____ 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: 0.020
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 ?
   _____ / _____ Minutes/Hours
3. Approximate Water Volume Removed ? _____ 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 13 Ft. Date 2-4-01
Before Development _____ Ft. Date _____
After Development _____ Ft. Date _____

Driller/Firm LAYNE
Drill Rig Type AP1000
Date Installed 2-4-01
Drill Crew Perry
Well No. PC 105
Kerr-McGee Hydrologist Ed Krish

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCLLC	LOCATION Henderson NV	BORING NUMBER PC 106

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
5	0-7 GRAVEL, sdy, brn gry (5YR 4/1). 30-40% vf-vc, SA-SR sd in volc pea gravel to 3/4". 6'-7' com lg volc gravel to 4"		GP							DAMP @ 1' WTR @ 4' perched WTR
7										
8	7'-8' CLAY, silty, mottled v. pale oran (10YR 8/2) & brn (5YR 5/4)		CL							damp @ 7'
10	8-25' SAND, gravelly & silty. dk gry oran (10YR 6/4). 20-30% silt in matrix. Sd is vf-vc, SA-SR. 20-30% pea gravel to 1/2"-3/4", volc, com. calcareous		GM							WTR @ 8
15										
20										
25										
28	25-28 SAND, sl. silty, pale yell brn. vf-cg, SA-SR. com Calc. locally hard, cement		SW							
33	28-33 SAND, silty, pale yell brn (10YR 6/2). 30-40% silt, sl. calcareous; vfg, SA-SR sd		SM							damp @ 28'
35	33-40 CLAY and minor silty clay. Mod yell. brn (10YR 5/4) to 35' then yell gry (5Y 7/2) to 40'. sl. calcareous. Tr gypsum, Tr organics		CL							MC @ 33' TD @ 40'

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL; AUGER; ROCK CORE; THIN-WALLED TUBE; CONTINUOUS SAMPLER; NO RECOVERY

- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

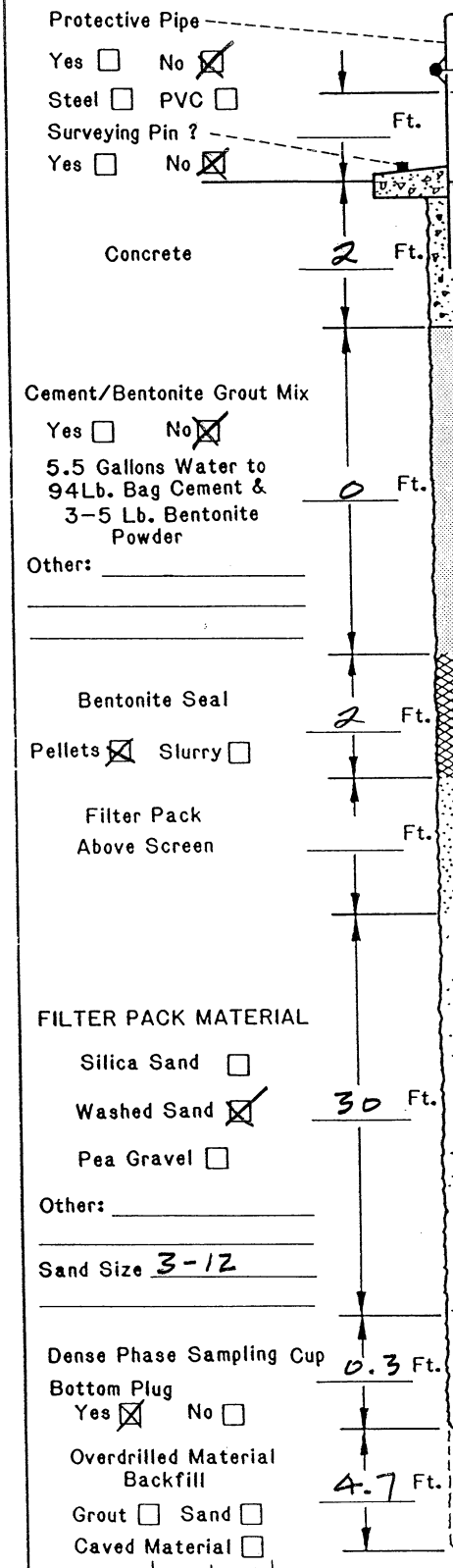
GRAPHIC LOG LEGEND

CLAY; SILT; SAND; GRAVEL; SILTY CLAY; CLAYEY SILT; DEBRIS FILL; HIGHLY ORGANIC (PEAT); SANDY CLAY; CLAYEY SAND; _____; _____

DATE DRILLED	2-4-01
PAGE	1 of 1
DRILLING METHOD	PERCUSSION
DRILLED BY	LAYNE
LOGGED BY	Ed Krish
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM

FLUSH MOUNT



DRILLING INFORMATION:

1. Borehole Diameter= 9 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 _____ 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: 0.020
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 ?
   _____ / _____ Minutes/Hours
3. Approximate Water Volume Removed ? _____ 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 4 Ft. Date 2-4-01
Before Development _____ Ft. Date _____
After Development _____ Ft. Date _____

Driller/Firm LAYNE Drill Rig Type AP 1000 Date Installed 2-4-01
Drill Crew Perry Horman Well No. PC-106 Kerr-McGee Hydrologist Ed Krish

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION Henderson NV	BORING NUMBER PC 107

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
	0-4 BERM - disturbed									
4	4'-8' SAND, silty, brn, calcareous. vf-vc. SA-SR, w/minor granules & pea gravel to 1". 7'-8' comp vdic gravel zone to 4"		SM							
8	8-12 GRAVEL, sdy. gry-oran (10YR 7/4). HARD. abu calc. cement. Granule-pea grav to 3/4		GW							
	12-16 SAND, silty. brn (5YR 5/4). Calcareous. vf-m, cemented to 14', vf-vc, sl. calc cement to 16'		SM							DAMP @ 12' WTR @ 14'
16	16-20 CLAY; ltgrn gry (5GY 8/1). Non-calc-areous, tr. gypsum. tr. ashy laminae. Damp		CL							
20	TD 20'									

EXPLANATION

- Water Table (24 Hour)
- Water Table (Time of Boring)
- PID — Photoionization Detection (ppm)
- NO. — Identifies Sample by Number
- TYPE — Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH — Depth Top and Bottom of Sample
- REC. — Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND

DATE DRILLED	PAGE
2-5-01	1 of 1

DRILLING METHOD: PERCUSSION

DRILLED BY: LAYNE

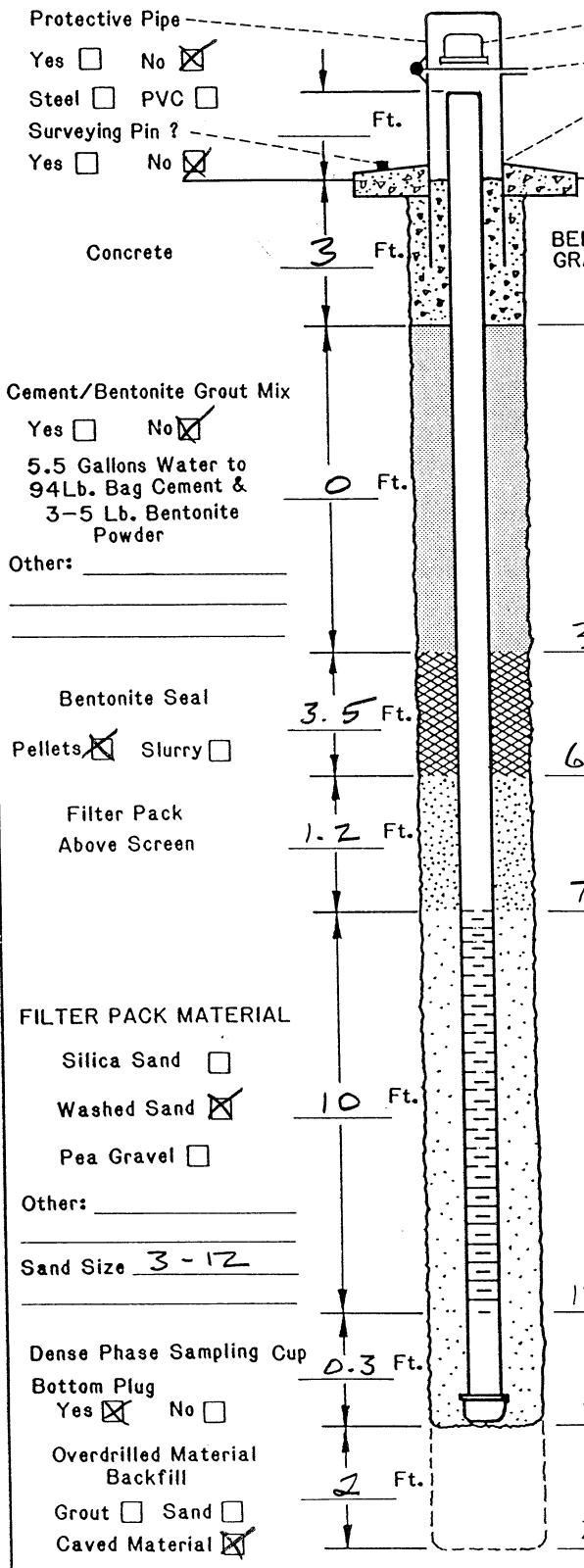
LOGGED BY: Ed KRISH

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM

FLUSH MOUNT



DRILLING INFORMATION:

1. Borehole Diameter= 9 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 _____ 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: 0.020
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 ?
   _____ / _____ Minutes/Hours
3. Approximate Water Volume Removed ? _____ 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 14 Ft. Date 2-5-01

Before Development _____ Ft. Date _____

After Development _____ Ft. Date _____

Driller/Firm LAYNE Drill Rig Type AP-1000 Date Installed 2-5-01

Drill Crew PERRY HORMAN Well No. PC 107 Kerr-McGee Hydrologist ED KRISH

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCLLC	LOCATION HENDERSON, NV	BORING NUMBER PC 108

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
5	0-8 SAND, gravelly and silty. dk yell brn (10YR 4/2) f-vc. SA-SR w/ 20-30% silt & 10-20% pea gravel to 1", volc.		SW/ SM							
8	7-8 com lg gravel to 3"									
15	8-19 GRAVEL, sdy & slty. Granule to pea gravel to 1/2", volc SA-SR w/ 30-40% f-vc SA-SR sd and 20% silt. calcareous.		GW/ GM							damp @ 8' WTR @ 9'
19	19-28 SAND, slty, mod yell brn (10YR 5/4). vf-fg, SA, w/ 20-30% silt. Calcareous. Contains minor thin interbeds of sdy SILT @ 28' well cemented, CaO_3		SM							
28										
29	28-29 CLAY, lt grn gry (5GY 8/1)		CL							
33	29-33 SAND and sdy SILT. Partly oxidized-yell gry (5Y 7/2) & dk yell orange (10YR 6/6). vf-fg, SA		SW/ SM							
35	33-45 SAND, slty w/ minor interbeds of sdy SILT. brn. Calcareous. (20%-30% silt in vfg, A-SA sd and 20-30%		SM							

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND

DATE DRILLED	PAGE
2-5-01	1 of 2
DRILLING METHOD: Percussion	
DRILLED BY: Layne	
LOGGED BY: Ed Krish	
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON NV	BORING NUMBER PC 108

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
	vfg, A-sR sd in silt.		SM							
45										
	45-50 SILT, cly, mod oran pink (10R 7/4). 30-40% clay in matrix		ML							MC @ 45
50										
	50-55 CLAY, silty, lt grn gry (5GY 8/1). Sp blk organics, tr gypsum		CL							
55										
	TD @ 55									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	PAGE
2-5-01	2 of 2

DRILLING METHOD: PERCUSSION

DRILLED BY: LAYNE

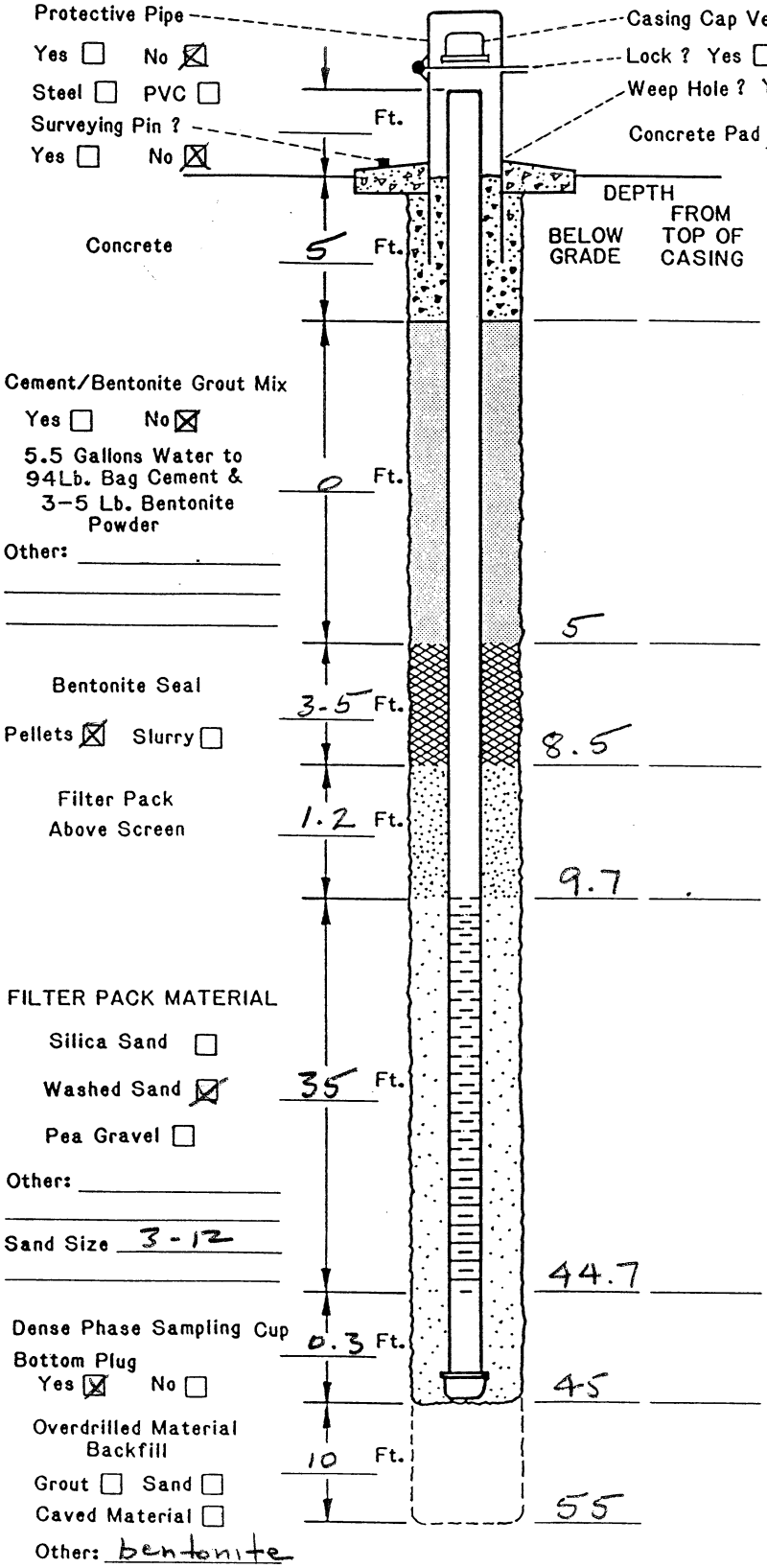
LOGGED BY: Ed Krish

EXISTING GRADE ELEVATION (FT AMSL)

LOCATION OR GRID COORDINATES

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM

FLUSH MOUNT



DRILLING INFORMATION:

1. Borehole Diameter= 9 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 ____ 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: 0.020
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 ?
   ____/____ Minutes/Hours
3. Approximate Water Volume Removed ? ____ 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 9 Ft. Date 2-5-01

Before Development ____ Ft. Date ____

After Development ____ Ft. Date ____

Driller/Firm LAYNE Drill Rig Type AP 1000 Date Installed 2-5-01

Drill Crew PERRY HORMAN Well No. PC 108 Kerr-McGee Hydrologist Ed KRISH

P&A 6/03

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION Henderson NV	BORING NUMBER PC 109

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
6	0-6 SAND, sl. silty w/ minor granules to 1/2". Dk yell brn (10YR 4/2). 10-20% silt in matrix, 10-20% volc granules (SR-SA). Sand is vf-vc SA-SR. Mod calcareous		SW							
10	6-21' Gravel, sdy. Dk yell brn. 10-20% silt in matrix. Contains 20-30% vf-vc, SA-SR sand. Sl. mod calcareous Gravel is granule-pea gravel size to 3/4" (inc size downward), volc. SR-SA.		GW							damp @ 8' WTR @ 10'
15	15-20 com lg volc gravel to 4"									
21	20-21 inc in silt to 30-40%									
25	21-29 SAND, silty, mod yell grn (5GY 6/2). 30-40% silt in vf-fg, SA, sand. Mod calc. w/ minor 4" caliche nodules. Contains minor thin calichified vcsd-granule beds.		SM/SW							
29	Locally sd is oxidized to dk yell orange (10YR 6/6)									
35	29-35 SAND, silty w/ minor SILT, sdy & SILT, interbedded. Brn (5YR 5/4). Com v.sm. gyp. Mod v. sm. hnbde(?). Sl. Calcareous. Tr-sp. blk organics Sd is vfg, SA w/ 30-40% silt		SM							damp only
37	35-37 CLAY & SILT, cly, lt grnary (5GY 8/1). Sp gypsum?		CL							MC @ 35'
			ML							One thin bed of hnbde-rich vfg sd Tuff?

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	PAGE
2-6-01	1 of 2

DRILLING METHOD: PERCUSSION

DRILLED BY: LAYNE

LOGGED BY: ED KRISH

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION Henderson, NV	BORING NUMBER PC 109

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
	37-45 SILT, sdy w/ minor SILT. Brn. 20-30% rfg, A-SA sd in silt. Sl. calcareous. Com gypsum? vuggy. Sp-mod organics (root casts, grass blades)		ML							
45	45-50 CLAY w/minor silty CLAY. Lt grn gry (5GY 8/1). Mod-com blk organics tr. gypsum. Ashy?		CL							
50	TD 50'									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL; AUGER; ROCK CORE; THIN-WALLED TUBE; CONTINUOUS SAMPLER; NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

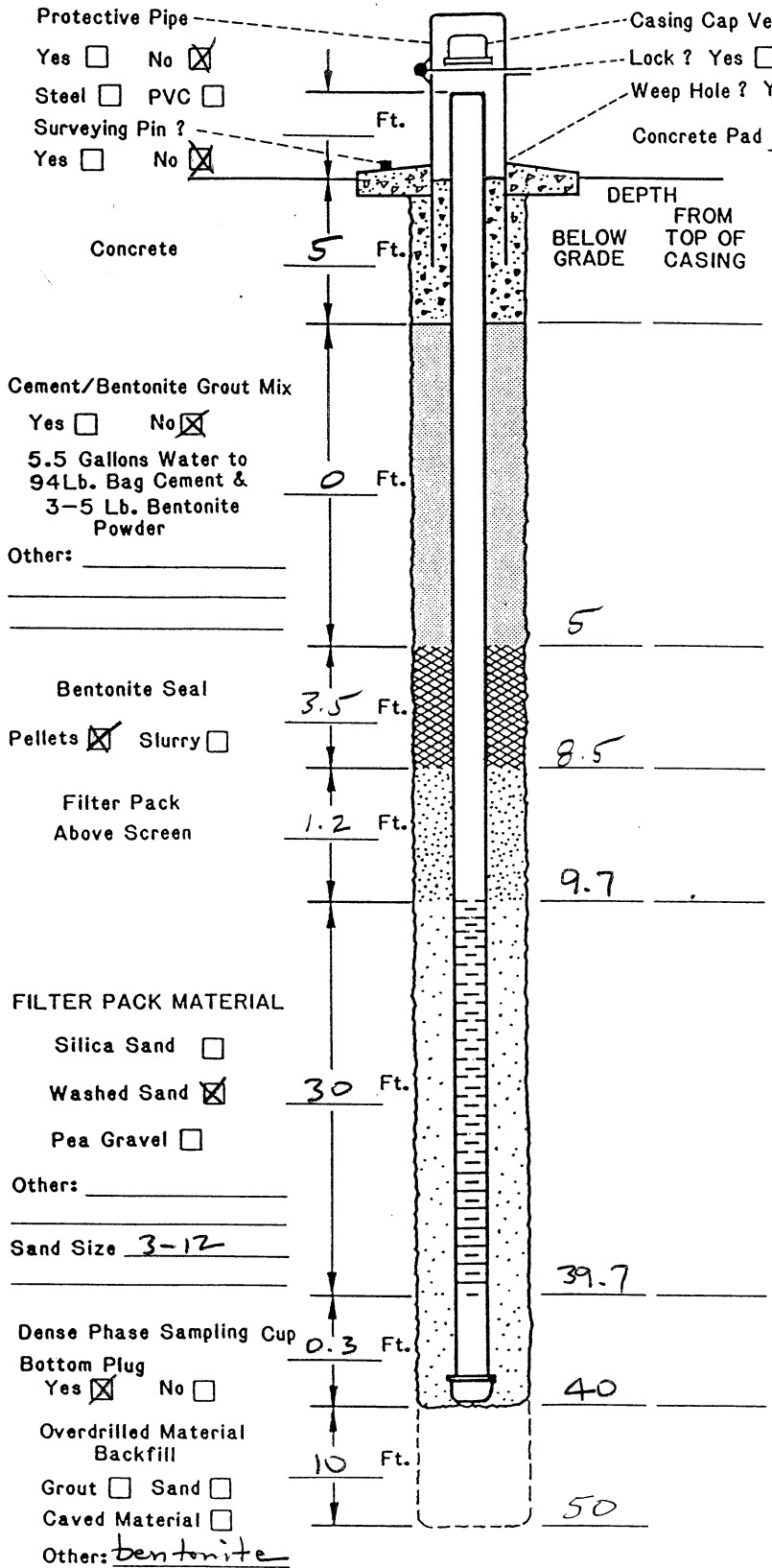
CLAY; SILT; SAND; GRAVEL; SILTY CLAY; CLAYEY SILT; DEBRIS FILL; HIGHLY ORGANIC (PEAT); SANDY CLAY; CLAYEY SAND; _____; _____

DATE DRILLED	PAGE
2-6-01	2 of 2

DRILLING METHOD: PERCUSSION
DRILLED BY: LAYNE
LOGGED BY: Ed Krish
EXISTING GRADE ELEVATION (FT AMSL):
LOCATION OR GRID COORDINATES:

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM

FLUSH MOUNT



DRILLING INFORMATION:

1. Borehole Diameter= 9 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 _____ 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: 0.020
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 ?
   _____ / _____ Minutes/Hours
3. Approximate Water Volume Removed ? _____ 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 10 Ft. Date 2-6-01

Before Development _____ Ft. Date _____

After Development _____ Ft. Date _____

Driller/Firm LAYNE Drill Rig Type AP-1000 Date Installed 2-6-01

Drill Crew Perry Horman Well No. PC 109 Kerr–McGee Hydrologist Ed Krish

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCLLC	LOCATION HENDERSON NV	BORING NUMBER PC 110

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
6	0-6 SAND, gravelly. yell brn (10YR 5/2). vf-cg SA-SR, volc w/ 30-40% SR gravel to 2" w/ minor 4". Sp. silt (10%) calcareous		SW							
10	6-19 GRAVEL, sdy. Yell brn. Gravel, SA-R, volc, ave 2", locally to 4". Contains 30-40% vf-vc, SA-SR sand and 10% silt. Calcareous, locally calichefied. 12-14 hard		GW							damp @ 11' WTR @ 13'
19										
20	19-20 CLAY, silty, brn		CL							damp
22	20-22 SAND, silty. brn vfg, A-SA sd w/ 30-40% silt calcareous		SM							damp
25	22-37 GRAVEL, sdy. pale yell brn (10YR 6/2). Abu cement (calcareous and silicious), Very Hard Volc gravel to 3", SA-R, contains 20-30% vf-vc SA-SR sand. 27'-28' cobbles of lt brn qtzite to 6"		GW							WTR @ 22'
30										
35										
37										
	TD 37' (REFUSAL)									

EXPLANATION

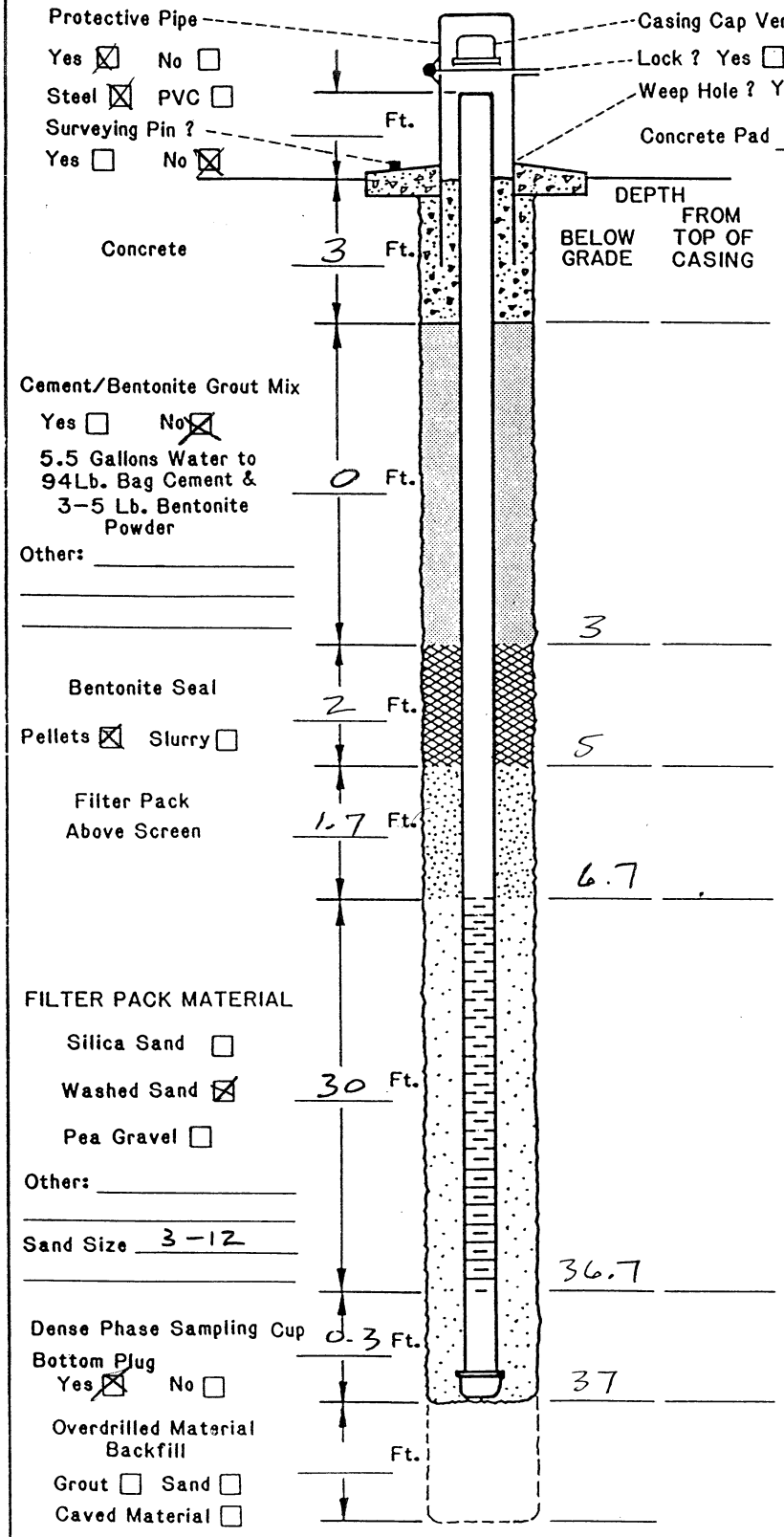
- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND

DATE DRILLED	PAGE
2-6-01	1 of 1
DRILLING METHOD: PERCUSSION	
DRILLED BY: LAYNE	
LOGGED BY: Ed Krish	
EXISTING GRADE ELEVATION (FT AMSL)	
LOCATION OR GRID COORDINATES	

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM



DRILLING INFORMATION:

1. Borehole Diameter= 9 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 _____ 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: 0.020
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 ?
   _____ / _____ Minutes/Hours
3. Approximate Water Volume Removed ? _____ 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 13 Ft. Date 2-6-01

Before Development _____ Ft. Date _____

After Development _____ Ft. Date _____

Driller/Firm LAYNE Drill Rig Type AP-1000 Date Installed 2-6-01

Drill Crew Perry Horman Well No. PC 110 Kerr–McGee Hydrologist Ed Krish

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON, NV	BORING NUMBER PC 111

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
5	0-19 GRAVEL, sdy & SAND, gravelly, interbedded (fining upward sequences). Dk yell brn 10YR 4/2). Sl. calcareous sd is f-c w/minor vc, A-SR, 30-40% in gravel. Gravel is A-SR, volc, ave 1-2" w/minor 4", 20-30% in sand		GW/SW							
10	0-3 sdy gravel 3-5 sd w/minor pea gravel									damp @ 10'
15	5-6 sdy gravel 6-8 sand w/minor sm gravel (to 1/2") 8-9 sdy gravel to 4"									
19	9-10 sd, gravelly, mostly 1/2-3/4"									WTR @ 19'
25	10-19 pea gravel, sdy w/ 4" cobbles @ 14'-15' and boulders 18'-19' w/silt		GW							
30	19-30 GRAVEL, sdy, HARD, well cemented brn (5YR 5/4). Volc pea gravel to 3/4" w/ 20-40% poorly sorted vf-vc, A-SR sd.									
35	22-24 60% vf-m sd (silty) matrix in weakly cemented gravel		SM							
	22-29 dec in cement & gravel size to 3/8"-1/2"		ML							MC @ 35'
	29-30' 1" SA-SR un-cemented volc gravel									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL | AUGER | ROCK CORE | THIN-WALLED TUBE | CONTINUOUS SAMPLER | NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY | DEBRIS FILL | SILT | HIGHLY ORGANIC (PEAT) | SAND | SANDY CLAY | GRAVEL | CLAYEY SAND | SILTY CLAY | CLAYEY SILT

DATE DRILLED	PAGE
2-7-01	1 of 2

DRILLING METHOD: PERCUSSION

DRILLED BY: LAYNE

LOGGED BY: ED KRISH

EXISTING GRADE ELEVATION (FT AMSL):

LOCATION OR GRID COORDINATES:

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON NV	BORING NUMBER PC 111

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
41	30-35 SAND, silty, partly cemented, gry oran (10YR 7/4). Carb. cemented 35'-37'. vf-fg, A-SR, sp. carb. 37'-40'		ML							
45	35-41 SILT, dk gry orange (10YR 6/4)		ML							
48	41-48 SILT, sdy w/ minor interbedded silty SAND, dk gry orange. vfg, A-SA sd.		ML/CL							
50	48-50 SILT, clayey, red brn (10R 4/4) tr-sp gypsum		SM							
52	50-52 SAND, silty, gry orange (10YR 7/4). vf, A-SR w/ 30-40% silt, tr-sp gyp		ML							
55	52-60 SILT, sdy, and SILT, interbedded, brn. 20-30% vfg sd locally. Com gypsum 56'-58'									
60	TD 60'									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	PAGE
2-7-01	2 of 2

DRILLING METHOD: PERCUSSION

DRILLED BY: LAYNE

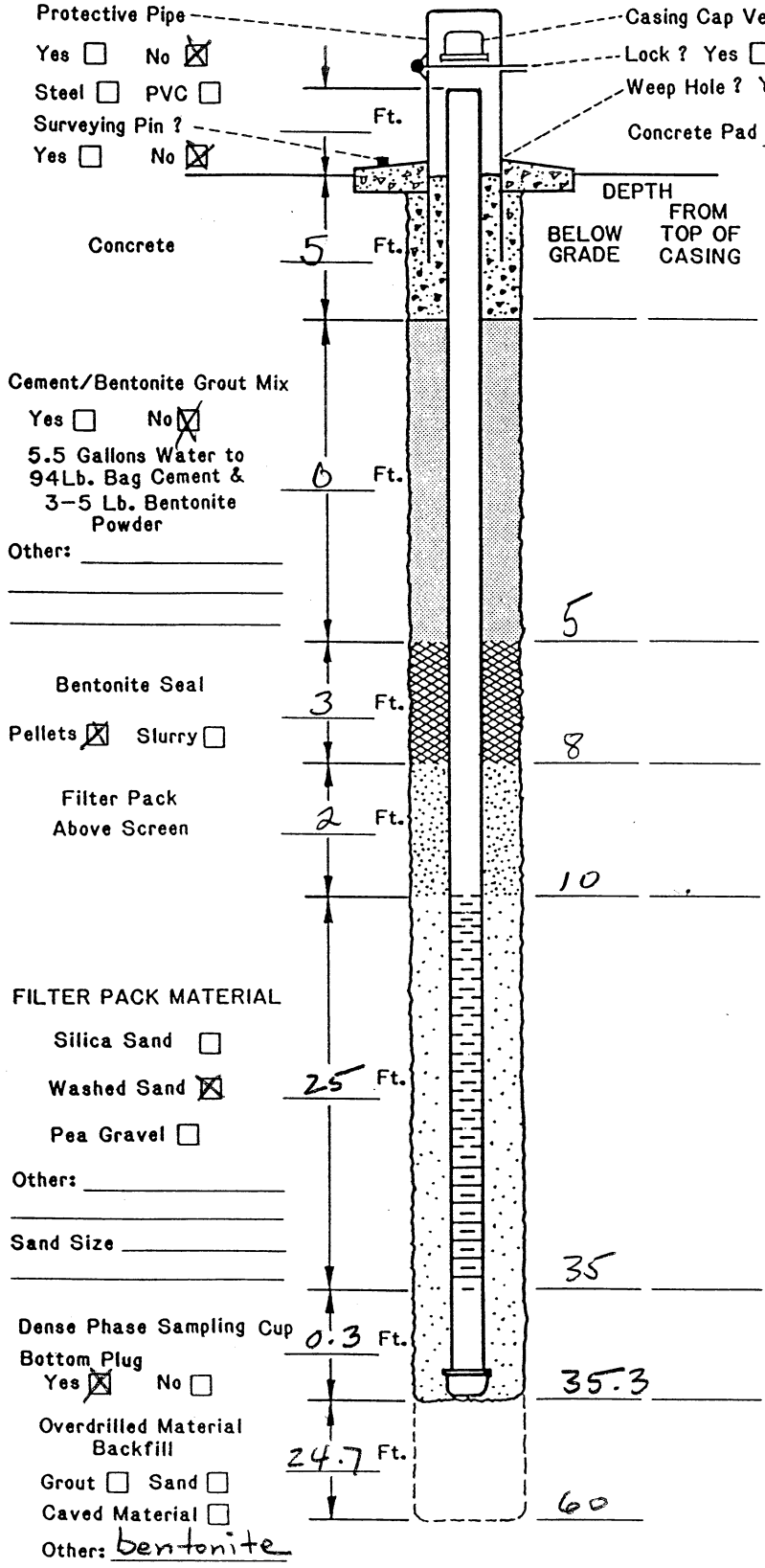
LOGGED BY: Ed Krish

EXISTING GRADE ELEVATION (FT AMSL):

LOCATION OR GRID COORDINATES:

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM

FLUSH MOUNT



DRILLING INFORMATION:

1. Borehole Diameter= 9 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 _____ 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: 0.020
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 ?
   _____ / _____ Minutes/Hours
3. Approximate Water Volume Removed ? _____ 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 19 Ft. Date 2-7-01

Before Development _____ Ft. Date _____

After Development _____ Ft. Date _____

Driller/Firm LAYNE Drill Rig Type AP-1000 Date Installed 2-7-01

Drill Crew PERRY HORMAN Well No. PC-111 Kerr-McGee Hydrologist Ed Krish

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION Henderson, NV	BORING NUMBER PC 112

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	0-12 SAND, silty, brn, w/ 10-15% silt and 20% volc granules.									
5	rf-cgw/ minor vcg, SA-SR		SM/							
	Mod-com c-vc sd size caliche nodules		GM							
10										
	12-15 SILT, sdy, brn, 20-30% vfg, A-SA sd.		ML							damp @ 12'
15										
	15-22 SAND, silty, brn to 19', gry yell grn (5GY 7/2) to 22'		SM							
20	20-30% silt in vf-fg SA sand									WATER @ 20'
22										
	22-30 GRAVEL, silty & sdy. brn. Granule-pea gravel size to 1/2"		GM							
25	Com caliche nodules 30-40% silt matrix w/ 20% vfg sd									
30	22'-26' cln, pea gravel		SM							
	26'-30' v. silty pea gravel									
33	30-33 SAND, silty, dk yell brn (10YR 4/2). 30-40% silt in vf-m w/ minor cg, SA-R sd. Calcareous		GM/							
35	33'-42' GRAVEL, sdy & silty (probably thinfining upward alluvial sequences)		SM							

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	PAGE
2-7-01	1 of 2

DRILLING METHOD: PERCUSSION

DRILLED BY: LAYNE

LOGGED BY: Ed KRISH

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION Henderson, NV	BORING NUMBER PC 112

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
42	dk yell brn. Gravel to 4" (ave 1") com caliche nods. Volc, SA-SR. SAND vf-c, SR-SA, calcareous		GM/SM							
	34-35' lg volc cobbles to 4"		SM							
47	42-43' lg volc cobbles to 4"									
	42-47 SAND, silty and minor SILT, interbedded brn, vf-f, SA-SR, mod-calcareous 20-30% silt in sd matrix		SW/GW							
50			CL							MC @ 50'
54	47-50 SAND grading to GRAVEL, pale oran (10YR 7/2). 47'-48' vf-vc, SA-SR sd grading to gravelly sd from 48'. Gravel, 20-30% volc + ls. + caliche nodules Calcareous. Up to 1½"							TD @ 54'		
	50'-54' CLAY and sdy-silty CLAY, yell gry (5Y 8/1) and lt grn gry (5GY 8/1) Com blk organics. Tr-sp gypsum									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED: 2-7-01

PAGE: 2 of 2

DRILLING METHOD: PERCUSSION

DRILLED BY: LAYNE

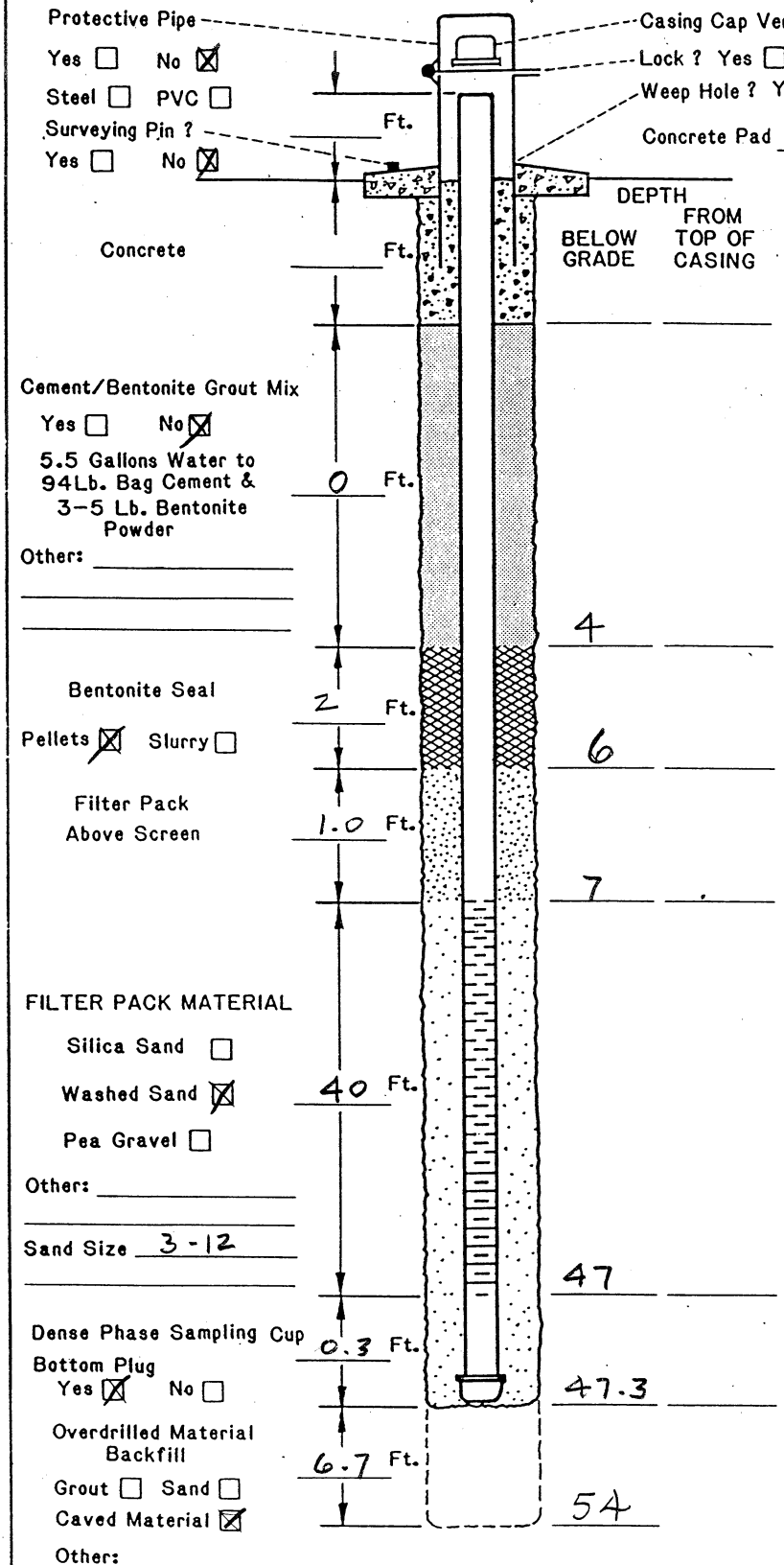
LOGGED BY: Ed KRISH

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM

FLUSH MOUNT



DRILLING INFORMATION:

1. Borehole Diameter= 9 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 ____ 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: 0.020
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 ?
   ____ / ____ Minutes/Hours
3. Approximate Water Volume Removed ? ____ 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 20 Ft. Date 2-7-01

Before Development ____ Ft. Date ____

After Development ____ Ft. Date ____

Driller/Firm LAYNE Drill Rig Type AP-1000 Date Installed 2-7-01

Drill Crew PERRY HORMAN Well No. PC 112 Kerr-McGee Hydrologist Ed Krish

P-A 6/03

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON, NV	BORING NUMBER PC 113

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
5	0-12 GRAVEL, sdy, dk yell brn (10YR 4/2), w/ 20-30% m-vc, SA-R sd in volc gravel, A-SR up to 1" 0-5' grav to 1" 5'-11' grav to 1/2" 11-12 grav to 4"		GW							WTR @ 10'
12	12-15 SAND, slty, brn, f-c w/minor vf & vc + gran. to 1/2", 20% silt		SM/SW							
15	15-20 SAND, silty, pale yell brn (10YR 6/2). vf-fg w/minor mg, SA-SR. 20-30% silt, non-calc		SM							
20	20-25 GRAVEL, dk yell brn (10YR 6/2), contains 10-15% vf-vc, SA-SR sd in volc granule-pea grav. to 3/8"-1/2" w/minor 1", SA-SR. SP caliche nodules to 3/8"		GP							
25	25-30 SAND, silty, mod yell brn (10YR 5/4), 20-30% silt. vf-vc, SA-SR sd. non-calc, minor granules (10%) to 3/8"		SM							
30	30-44 SILT & cly SILT, interbedded, brn (5YR 5/4) & lt grn gry (5GY 8/1), mod vf gyp xtals. non-calc.		ML & CL							MC @ 30'
35										

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- ☐ _____
- ☐ _____

DATE DRILLED	PAGE
2-8-01	1 of 2
DRILLING METHOD: PERCUSSION	
DRILLED BY: LAYNE	
LOGGED BY: Ed Krish	
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON, NV	BORING NUMBER PC 113

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
44			ML & CL							
	44-50 SILT, sdy, brn, w/10-20% vfg sd, sl. calc.		ML							
50	50-54 CLAY & silty CLAY, lt grn gry. Mod blk organic frags. tr-sp rf gyp xtals. 10-20% silt locally. local CaCO3 cement		CL							
54	TD 54'									

EXPLANATION

- Water Table (24 Hour)
- Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED 2-8- PAGE 2 of 2

DRILLING METHOD PERCUSSION

DRILLED BY LAYNE

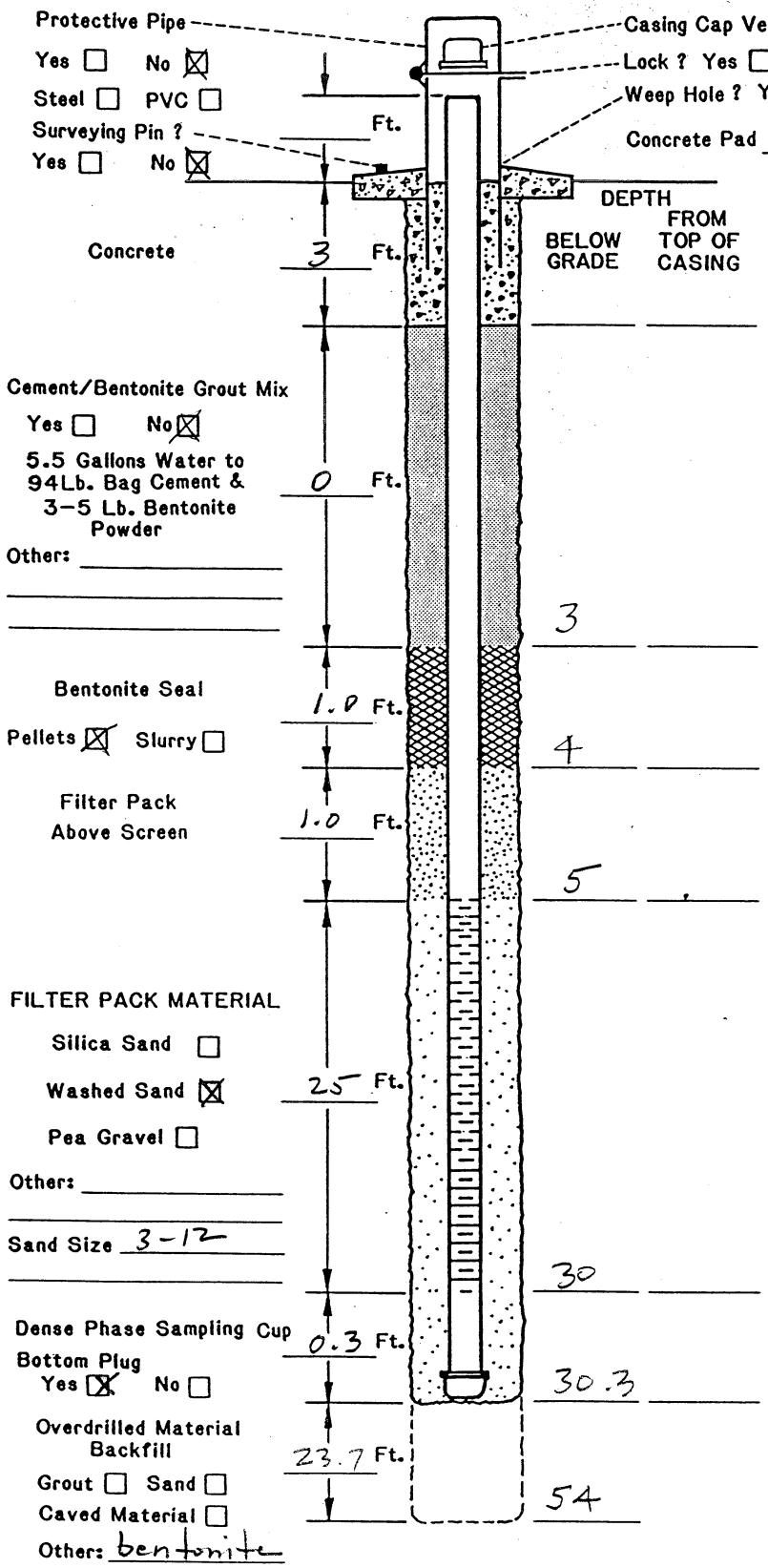
LOGGED BY ED KRISH

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM

FLUSH MOUNT



DRILLING INFORMATION:

1. Borehole Diameter= 9 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 _____ 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: 0.02
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 ?
   _____ / _____ Minutes/Hours
3. Approximate Water Volume Removed ? _____ 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 10 Ft. Date 2-8-01
Before Development _____ Ft. Date _____
After Development _____ Ft. Date _____

Driller/Firm LAYNE Drill Rig Type AP-1000 Date Installed 2-8-01

Drill Crew PERRY HORMAN Well No. PC 113 Kerr-McGee Hydrologist Ed Krish

P&A 6/03

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON, NV	BORING NUMBER PC 114

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
	0-3 SAND, silty, mod yell brn ( ). vf-vc, A-SR, 30-40% silt		SM							
3	3-10 SAND, gravelly w/ thin interbeds of silty sand. dk yell brn ( ), vf-vc, SA-SR w/ 20-30% volc gran. to 3/8". 20-30% silt in sdy zones. Com calc. 9-10 lg cobbles to 4"		SW							
10	10-16 GRAVEL, sdy w/ thin interbeds of sdy SILT, brn. 30-40%, vf-vc, SA-SR sd. sl. calc. Pea Gravel to 1"		GW							WTR @ 15'
16	16-21 SAND, silty, brn, f-vc, SA-SR w/ minor (10-20%) granules. 20-30% silt. sl. calcareous		SM							
21	21-29 GRAVEL, sdy w/ minor silty SAND interbeds. brn. sl. calc., 20-30% vf-vc, SA-SR sd ± 20-30% silt in coarsening downward volc, SA-SR gravel ... 3/8"-1/2" to 25' then 3/4"-1" to 29' 28'-29 com cobbles 3"		GW							
29			CL							MC @ 29'
32	29-32 CLAY, ltgrn gry, sp vf gyp xtals, tr-sp oxid. organic frags		CL							
35	32-35 CLAY, silty, pale olive (10YR 6/2), 10-20% silt sp gyp, sp blk organics									TD 35'

EXPLANATION

- Water Table (24 Hour)
- Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	PAGE
2-8-01	1 of 1

DRILLING METHOD: PERCUSSION

DRILLED BY: LAYNE

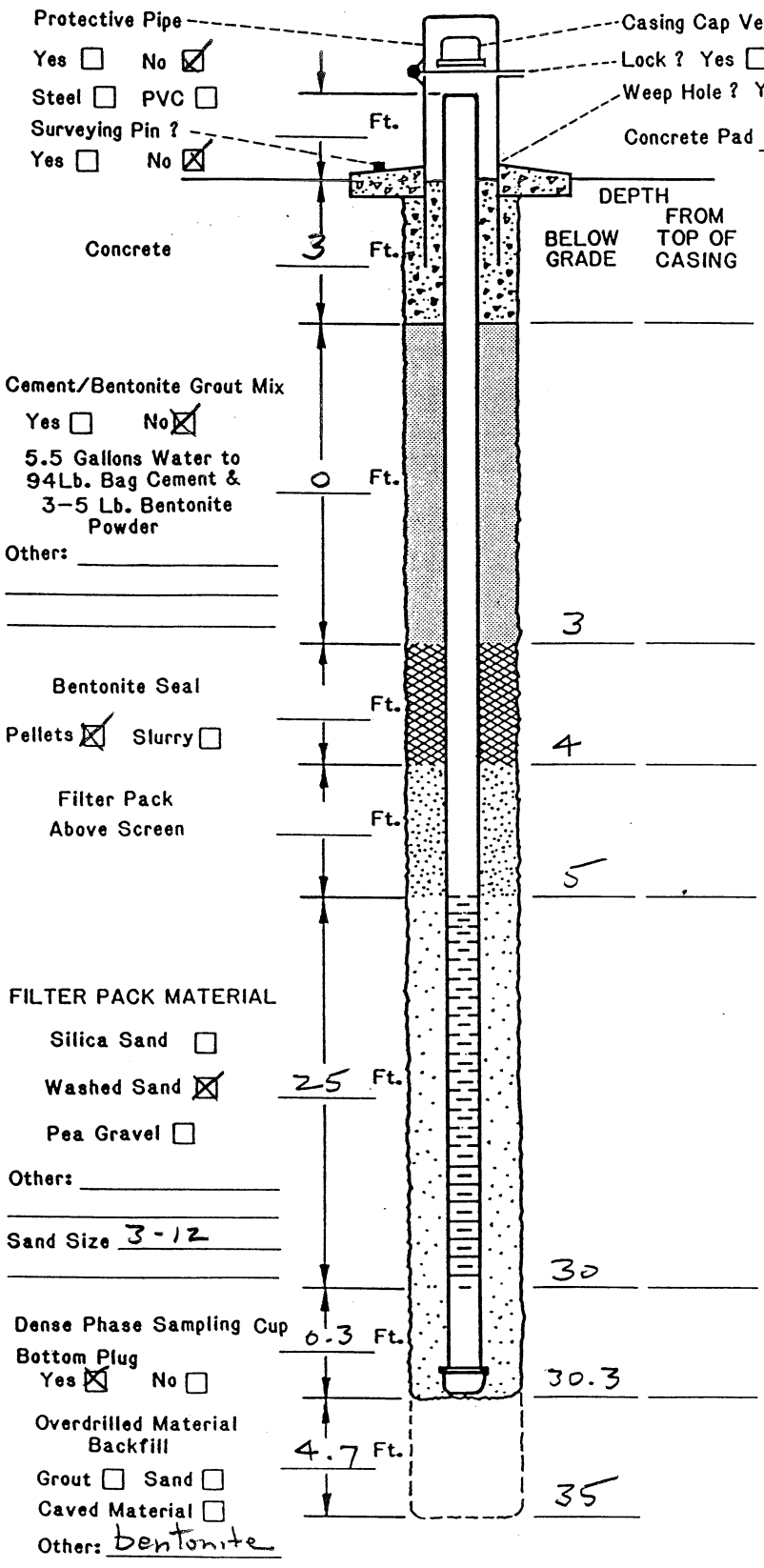
LOGGED BY: Ed KRISH

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM

FLUSH MOUNT



DRILLING INFORMATION:

1. Borehole Diameter= 9 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 _____ 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: 0.020
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 ?
   _____ / _____ Minutes/Hours
3. Approximate Water Volume Removed ? _____ 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 15' Ft. Date 2-8-01

Before Development _____ Ft. Date _____

After Development _____ Ft. Date _____

Driller/Firm LAYNE Drill Rig Type AP-1000 Date Installed 2-8-01

Drill Crew PERRY HORMAN Well No. PC 114 Kerr-McGee Hydrologist EJ Krish

SOIL BORING LOG KM—5655-A

KERR-McGEE CORPORATION Hydrology Dept. Engineering Services	KM SUBSIDIARY KMCLLC	LOCATION HENDERSON NV	BORING NUMBER PC 122

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER FOOT	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	0-9 SAND, gravelly w/ minor beds of crse-gravel. lt brn. Sand 50-70% vf-vc, SA, w/ 10-20% silt in matrix. Gravels mostly pea-size w/ minor 3-5" cobbles.		SP/SM							
5										
9	9-18 Gravel, sdy, pale yell brn, pea-gravels to ½" (50-70%) w/ sdy matrix vf-vc, SA		GP							
15										
18	18-32 SAND, locally gravelly to ½ in. lt brn. 70% vf-vc sd, SA		SP							
20										
25										wet @ 26'
32	32-37 Gravel, volc, SA-SR, to 5" diam w/ 30% sdy matrix, brn		GP							NO CALICHE
37	37-40TD CLAY, silty, lt grn gry, w/ sp. gyp.		CL							MUDDY CLY @ 37'

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
  - SPLIT-BARREL
  - AUGER
  - ROCK CORE
  - THIN-WALLED TUBE
  - CONTINUOUS SAMPLER
  - NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- ☐ _____
- ☐ _____

DATE DRILLED	PAGE
2-24-04	1 of 1

DRILLING METHOD: HSA

DRILLED BY: ELITE / TENV

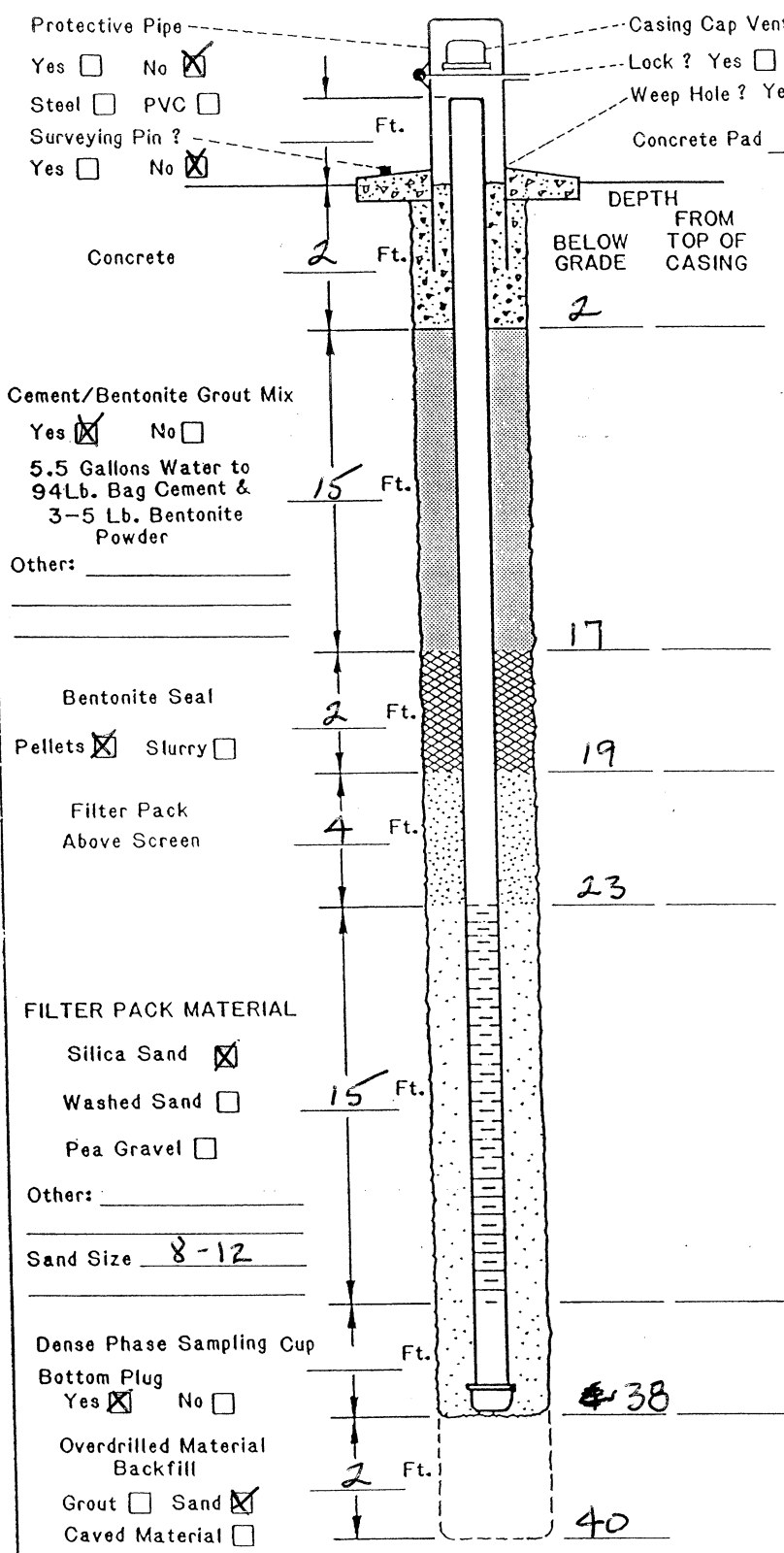
LOGGED BY: ED KRISH

EXISTING GRADE ELEVATION (FT. AMSL):

LOCATION OR GRID COORDINATES:

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM

FLUSH MOUNT



DRILLING INFORMATION:

1. Borehole Diameter= 8 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 _____ 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: 0.020
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 ?
   60 E Minutes/Hours
3. Approximate Water Volume Removed ? 50 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 2-24-04 Ft. 27.00' Date
Before Development 2-24-04 Ft. 27.02' Date
After Development 2-25-04 Ft. 26.95' Date

Driller/Firm ELITE / TENV Drill Rig Type Mobile B50 Date Installed 2-24-04

Drill Crew TOM Well No. PC 122 Kerr-McGee Hydrologist ED KRISH

SOIL BORING LOG KM-5655-A

KERR-McGEE CORPORATION Hydrology Dept. Engineering Services	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON, NV	BORING NUMBER PC 123

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER FOOT	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
	0-1 Pavement & fill									
	1-8 GRAVEL, sdy, brn, 65% subrd pebbles (SR) to 3-4", w/25% vf-vc sd. and 10% silt.		GW/GM							
8	8-12 SAND, gravelly, brn, 70% vf-vc, SA-SR sd w/ 30% ¼"-½" pea gravel		SW							
12	12-22 GRAVEL, sdy, brn, 70% subrd pebbles, SR, to ½-1" w/ 20% vf-vc, SA-SR sd. AND 10% silt		GW/GM							DAMP @ 17'
20										
22	22-27 SAND, gravelly, 70% vf-vc sd, brn w/ 20% ½" pea gravel & 10% SILT		SW/SM							WET @ 22'
27	27-33 GRAVEL, sdy brn w/mud, hard calichified matrix. 70% gravel to 1-3" w/30% sd.		GW							
33	mod calichified 33-35 CLAY, silty, grn		CL							MC @ 33'
35.5	grn TD 35.5									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	PAGE
3-9-04	1 of 1

DRILLING METHOD: HSA

DRILLED BY: WDC

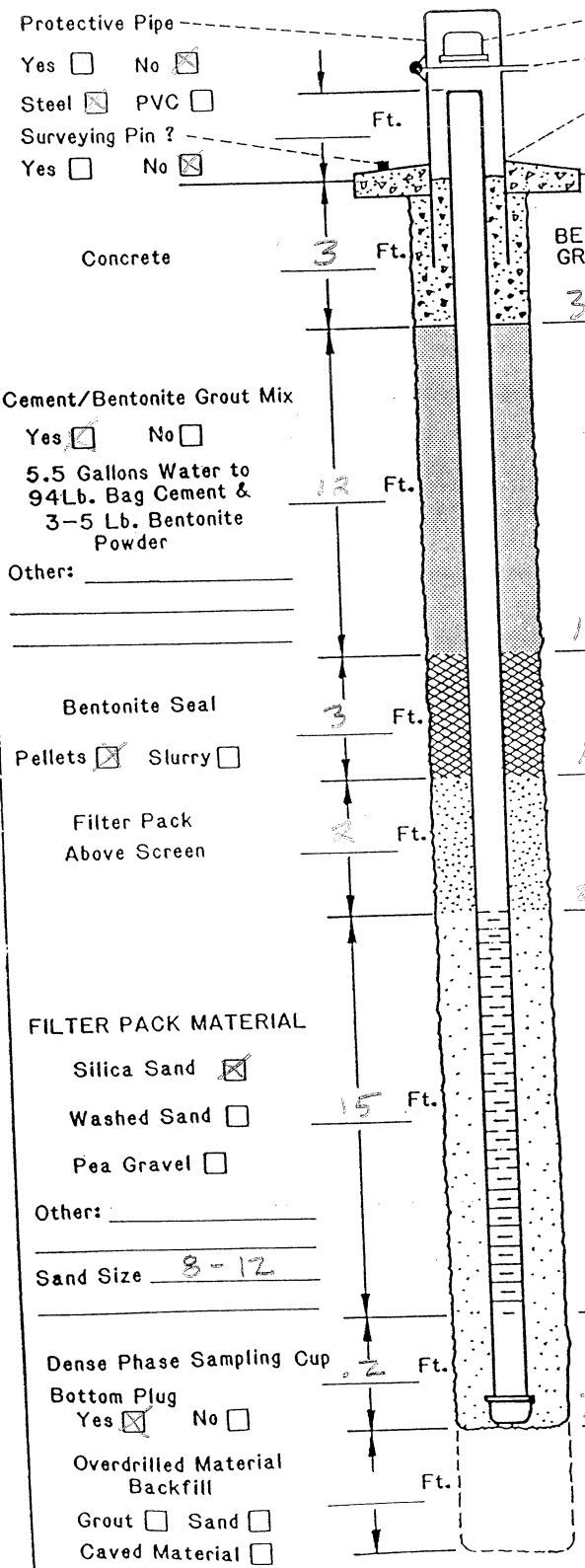
LOGGED BY: CD KRISH

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM

FLUSH



DRILLING INFORMATION:

1. Borehole Diameter= 8 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 _____ 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: .020
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 SURGE BLOCK / AIR LIFT
2. Time Spent on Well Development ?
   60 / _____ Minutes/~~Hours~~
3. Approximate Water Volume Removed ? _____ 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 22.8 Ft. Date 3-4-04
Before Development 25 Ft. Date 3-8-04
After Development _____ Ft. Date 3-10-04

Driller/Firm SURFACE Drill Rig Type CME 55 Date Installed 3-4-04

Drill Crew _____ Well No. PC 12.2 Kerr-McGee Hydrologist _____

SOIL BORING LOG KM—5655-A

KERR-McGEE CORPORATION Hydrology Dept. Engineering Services	KM SUBSIDIARY KMCLLC	LOCATION HENDERSON, NV	BORING NUMBER PC 124

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER FOOT	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
	0 - Pavement & Base									
	1-9 Gravel, sdy, 60% vol pebbles to 3" w/ 30% vf-vc sd and 10% silt		GW/GM							
9	9-24 SAND, grvelly, brn, 60% vf-vc, SA-SR sand w/ 30% vol pebbles to 1" and 10% silt (SERIES OF THIN, FINING-UPWARD SEQUENCES)		SW/SM							
20										DAMP @ 20'
24	24-29 Gravel, sdy, silty, brn, 50% gw gravel w/ 25% vf-vc, A-SR sd and 25% silt 28-29' Caliche									WET Caliche 28'-29'
29	29-32 SILT, sdy lt red brn, SA-A, w/ 30% vfg sd, no pea gravel		ML							WET
32	32-36 CLAY, silty ltgrn grn, 20% silt		CL							DRY MC @ 32
35.5	TD @ 35.5									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL · AUGER · ROCK CORE · THIN-WALLED TUBE · CONTINUOUS SAMPLER · NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

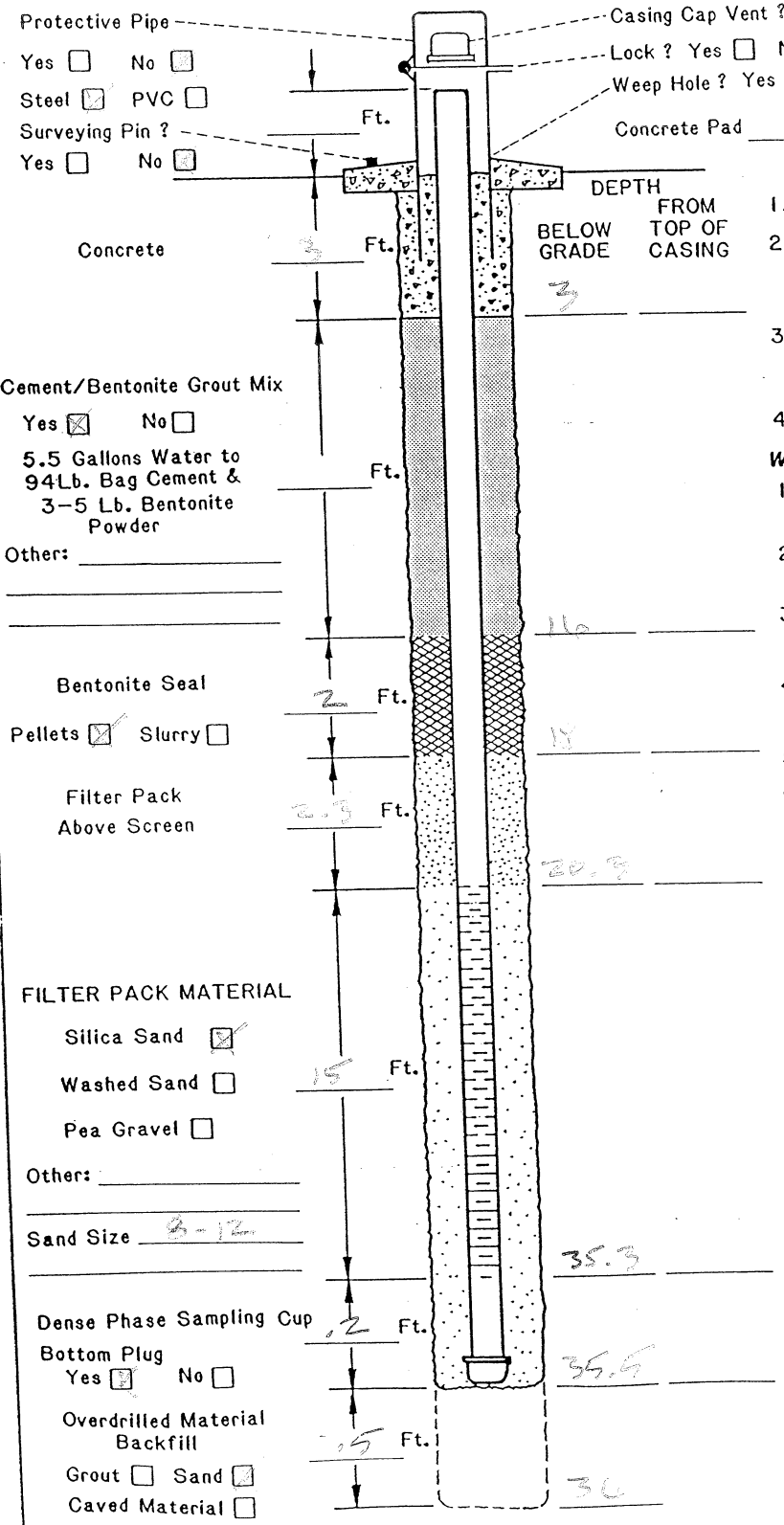
GRAPHIC LOG LEGEND

CLAY · SILT · SAND · GRAVEL · SILTY CLAY · CLAYEY SILT · DEBRIS FILL · HIGHLY ORGANIC (PEAT) · SANDY CLAY · CLAYEY SAND

DATE DRILLED	PAGE
3-9-04	1 of 1
DRILLING METHOD: HSA	
DRILLED BY: WDC	
LOGGED BY: ED KRISH	
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM

FLUSH MOUNT



DRILLING INFORMATION:

1. Borehole Diameter= 8 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 _____ 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: .020
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 SURGE BLOCK / AIR LIFT
2. Time Spent on Well Development ?
   60 / _____ Minutes/~~Hours~~
3. Approximate Water Volume Removed ? 55 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 24.5 Ft. Date 3-9-04
Before Development 24.5 Ft. Date 3-9-04
After Development _____ Ft. Date _____

Driller/Firm GEORGE [illegible] Drill Rig Type [illegible] Date Installed 3-9-04

Drill Crew [illegible] Well No. TC 12A Kerr-McGee Hydrologist [illegible]

SOIL BORING LOG KM—5655-A

KERR-McGEE CORPORATION Hydrology Dept. Engineering Services	KM SUBSIDIARY KMCLLC	LOCATION HENDERSON, NV	BORING NUMBER PC 125

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER FOOT	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	0-1 PAVEMENT + FILL									
5	1-11 GRAVEL, sdy, brn, 60% gravel to 1" w/ 20-30% vf-fg sd and 10-20% silt		GM							
11	11-16 SAND, gravelly brn, 70% vf-fg, SA-SR sd w/ 20% vole pebbles to 1" and 10% silt		SM							
16	16-26 GRAVEL, sdy brn, 50% vole, 5R up to 1" w/ 30% vf-fg sd and 10% silt		GM							PAMP @ 21'
25										WET @ 25'
	26-30 GRAVEL, brn 80% 1/4-1/2" pea gravel w/ 10% vf-fg sd & 10% silt		GW							Incr caliche 28'-30'
30	30-32 SILT, sdy, brn-lt red brn, 60% silt w/ 40% vf-fg sd.		ML							
32			CL							MC @ 32' DRY
34	32-34 CLAY, silty + sdy, lt gry grn, 70% clay, 15% silt + 15% vfg sd, mod 1/16-1/8" caliche nodules									
	TD 34'									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	3-10-04
PAGE	1 of 1
DRILLING METHOD	HSA
DRILLED BY	WDC
LOGGED BY	ED KRISH
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

MAJOR DIVISIONS			GROUP SYMBOLS	TYPICAL NAMES
COARSE-GRAINED SOILS	GRAVELS	CLEAN GRAVELS	GW	Well-Graded Gravels and Gravel-Sand Mixtures, Little or No Fines
			GP	Poorly Graded Gravels and Gravel-Sand Mixtures, Little or No Fines
		GRAVELS WITH FINES	GM	Silty Gravels, Gravel-Sand-Silt Mixtures
			GC	Clayey Gravels, Gravel-Sand-Clay Mixtures
	SANDS	CLEAN SANDS	SW	Well-Graded Sands and Gravelly Sands, Little or No Fines
			SP	Poorly Graded Sands and Gravelly Sands, Little or No Fines
		SANDS WITH FINES	SM	Silty Sands, Sand-Silt Mixtures
			SC	Clayey Sands, Sand-Clay Mixtures
FINE-GRAINED SOILS	SILTS AND CLAYS LIQUID LIMIT >50%		ML	Inorganic Silts, Very Fine Sands, Rock Flour, Silty or Clayey Fine Sands
			CL	Inorganic Clays of Low to Medium Plasticity, Gravelly Clay, Sandy Clays, Silty Clays, Lean Clays
			OL	Organic Silts and Organic Silty Clays of Low Plasticity
	SILTS AND CLAYS LIQUID LIMIT <50%		MH	Inorganic Silts, Micaceous or Diatomaceous Fine Sands or Silts, Elastic Silts
			CH	Inorganic Clays of High Plasticity, Fat Clays
			OH	Organic Clays of Medium to High Plasticity
HIGHLY ORGANIC SOILS			PT	Peat, Muck and Other Highly Organic Soils

ASTM GEOLOGICAL DESCRIPTION CHECKLIST FOR FINE-GRAINED AND PARTLY ORGANIC SOILS

1. **TYPICAL NAME:** Sandy Silt, Silty Clay, Clayey Silt, Organic Silt, Silt, Clay, Sandy Clay, Organic Clay
2. **MAXIMUM PARTICLE SIZE**
3. **SIZE DISTRIBUTION**
4. **DRY STRENGTH:** None, Very Low, Low, Medium, High, Very High
5. **DILATENCY:** None, Slow, Rapid
6. **PLASTIC THREAD:** Weak and Soft, Medium, Stiff, Very Stiff
7. **PLASTICITY OF FINES:** None, Low, Medium, High
8. **COLOR:** Use Munsell Notation, If Possible
9. **ODOR:** None, Earthy, Organic
10. **MOISTURE CONTENT:** Dry, Moist, Wet, Saturated
11. **CONSISTENCY:** Soft, Firm (Medium), Stiff, Very Stiff, Hard
12. **STRUCTURE:** Stratified, Laminated, Fissured, Slickensided, Blocky, Lensed, Homogeneous
13. **CEMENTATION:** Weak, Strong
14. **LOCAL OR GEOLOGIC NAME**

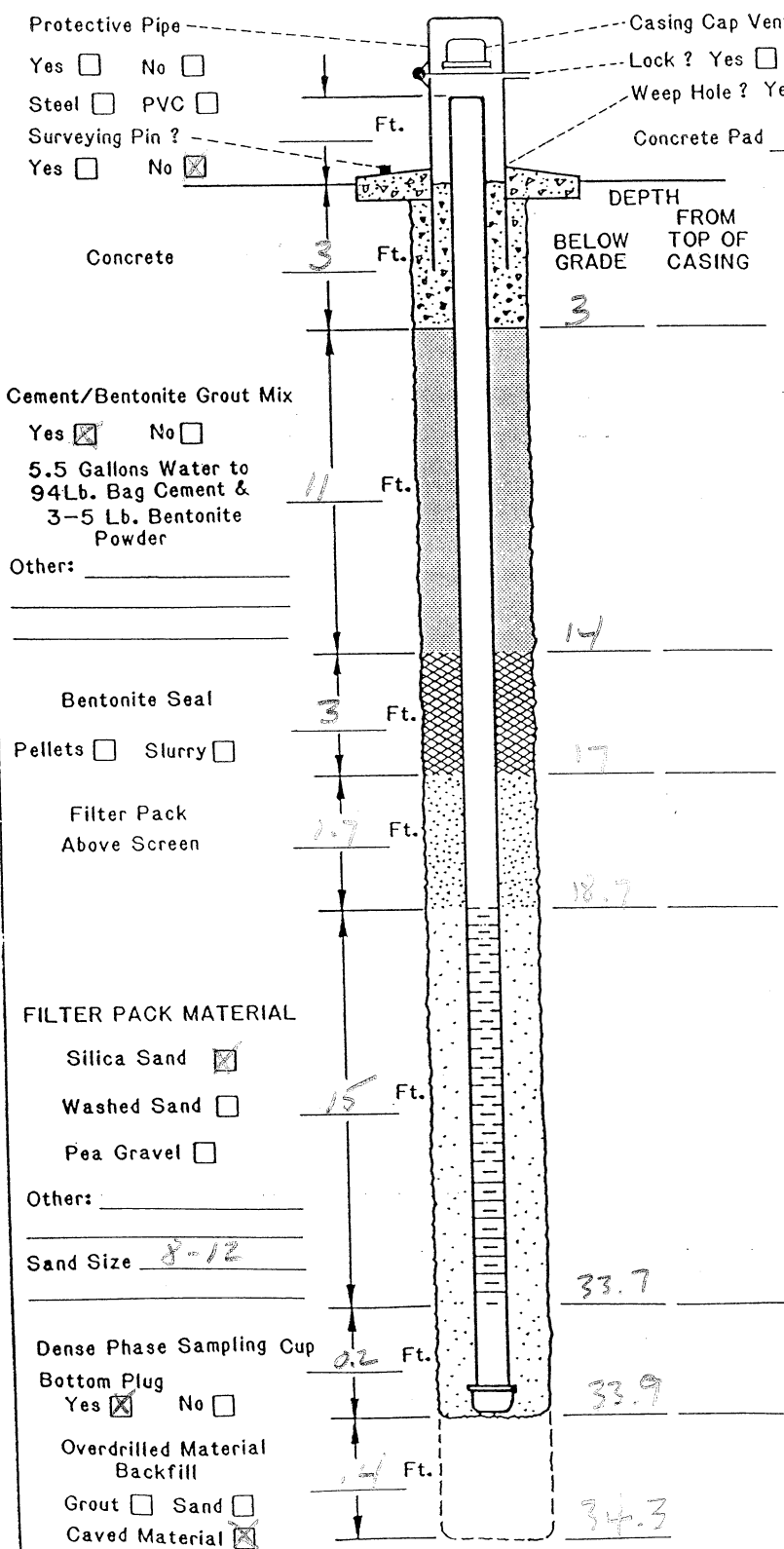
ASTM GEOLOGICAL DESCRIPTION CHECKLIST FOR COARSE GRAINED SOILS

1. **TYPICAL NAME:** Boulders, Cobbles, Gravel, Sand (Add Descriptive Adjectives For Minor Constituents)
2. **GRADUATION:** Well Graded, Poorly Graded
3. **MAXIMUM PARTICLE SIZE**
4. **SIZE DISTRIBUTION:** Percent Gravel, Sand and Fines
5. **GRAIN SHAPE:** Angular, Subangular, Subrounded, Rounded
6. **MINERALOGY:** Rock Type For Gravel, Predominant Minerals in Sand
7. **COLOR:** Use Munsell Notation, if Possible
8. **ODOR:** None, Earthy, Organic
9. **MOISTURE CONTENT:** Dry, Moist, Wet, Saturated
10. **NATURAL DENSITY:** Loose Dense
11. **STRUCTURE:** Stratified, Lensed, Nonstratified
12. **CEMENTATION:** Weak, Strong
13. **LOCAL OR GEOLOGIC NAME**

NOTES

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM

FLUSH MOUNT



DRILLING INFORMATION:

1. Borehole Diameter= 8 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 _____ 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: 0.020
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 SURGE BLOCK & AIR LIFT
2. Time Spent on Well Development ?
   60 Minutes/~~Hours~~
3. Approximate Water Volume Removed ? 55 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 23.1 Ft. Date 3-10-04
Before Development 23.1 Ft. Date 3-14-04
After Development _____ Ft. Date _____

Driller/Firm S.D.G. WDE Drill Rig Type CME 75 Date Installed 3-10-04
Drill Crew ART Well No. PC 125 Kerr-McGee Hydrologist ED KRISH

SOIL BORING LOG KM—5655-A

KERR-McGEE CORPORATION Hydrology Dept. Engineering Services	KM SUBSIDIARY KMCLLC	LOCATION HENDERSON, NV	BORING NUMBER PC 126

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER FOOT	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
1	CAL ASPHALT N SILL									
	1-12 GRAVEL, sdy, 60% volc pebbles to 2" w/ 60 vf-vc sd, SA-SR		GP							
	(probably fining-upward sequences)									
12	12-20 SAND, gravelly brn, vf-vc SA-SR, 60% w/ 30% gravel to 2" and 10% silt		SW							
20	20-33.5 Gravel, sdy w/ minor silt. Brn, 60% gravel to 1", mainly pea gravel size (3/8") w/ 30% vf-vc sand and 10% silt		GP/GM							DAMP @ 20' WET @ 23'
	32.5-33.5 Cmtd, hard									
33.5	33.5-35 TD SILT, sdy, brn, 70% w/ vfg sand.		ML							WET NO MC NDE
35										

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	3/10/04
PAGE	1 of 1
DRILLING METHOD	HSA
DRILLED BY	WDC
LOGGED BY	Ed Krish
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

MAJOR DIVISIONS			GROUP SYMBOLS	TYPICAL NAMES
COARSE-GRAINED SOILS	GRAVELS	CLEAN GRAVELS	GW	Well-Graded Gravels and Gravel-Sand Mixtures, Little or No Fines
			GP	Poorly Graded Gravels and Gravel-Sand Mixtures, Little or No Fines
		GRAVELS WITH FINES	GM	Silty Gravels, Gravel-Sand-Silt Mixtures
			GC	Clayey Gravels, Gravel-Sand-Clay Mixtures
	SANDS	CLEAN SANDS	SW	Well-Graded Sands and Gravelly Sands, Little or No Fines
			SP	Poorly Graded Sands and Gravelly Sands, Little or No Fines
		SANDS WITH FINES	SM	Silty Sands, Sand-Silt Mixtures
			SC	Clayey Sands, Sand-Clay Mixtures
FINE-GRAINED SOILS	SILTS AND CLAYS LIQUID LIMIT >50%		ML	Inorganic Silts, Very Fine Sands, Rock Flour, Silty or Clayey Fine Sands
			CL	Inorganic Clays of Low to Medium Plasticity, Gravelly Clay, Sandy Clays, Silty Clays, Lean Clays
			OL	Organic Silts and Organic Silty Clays of Low Plasticity
	SILTS AND CLAYS LIQUID LIMIT <50%		MH	Inorganic Silts, Micaceous or Diatomaceous Fine Sands or Silts, Elastic Silts
			CH	Inorganic Clays of High Plasticity, Fat Clays
			OH	Organic Clays of Medium to High Plasticity
HIGHLY ORGANIC SOILS			PT	Peat, Muck and Other Highly Organic Soils

ASTM GEOLOGICAL DESCRIPTION CHECKLIST FOR FINE-GRAINED AND PARTLY ORGANIC SOILS

1. **TYPICAL NAME:** Sandy Silt, Silty Clay, Clayey Silt, Organic Silt, Silt, Clay, Sandy Clay, Organic Clay
2. **MAXIMUM PARTICLE SIZE**
3. **SIZE DISTRIBUTION**
4. **DRY STRENGTH:** None, Very Low, Low, Medium, High, Very High
5. **DILATENCY:** None, Slow, Rapid
6. **PLASTIC THREAD:** Weak and Soft, Medium, Stiff, Very Stiff
7. **PLASTICITY OF FINES:** None, Low, Medium, High
8. **COLOR:** Use Munsell Notation, If Possible
9. **ODOR:** None, Earthy, Organic
10. **MOISTURE CONTENT:** Dry, Moist, Wet, Saturated
11. **CONSISTENCY:** Soft, Firm (Medium), Stiff, Very Stiff, Hard
12. **STRUCTURE:** Stratified, Laminated, Fissured, Slickensided, Blocky, Lensed, Homogeneous
13. **CEMENTATION:** Weak, Strong
14. **LOCAL OR GEOLOGIC NAME**

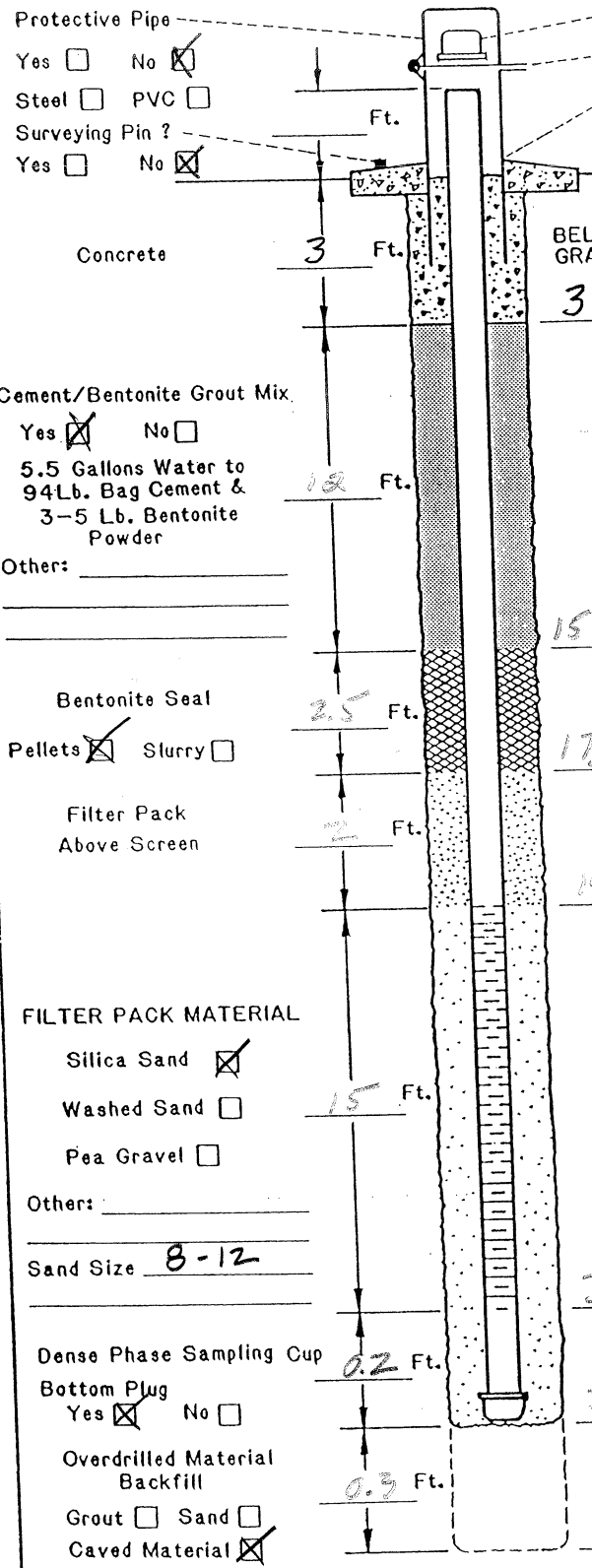
ASTM GEOLOGICAL DESCRIPTION CHECKLIST FOR COARSE GRAINED SOILS

1. **TYPICAL NAME:** Boulders, Cobbles, Gravel, Sand (Add Descriptive Adjectives For Minor Constituents)
2. **GRADUATION:** Well Graded, Poorly Graded
3. **MAXIMUM PARTICLE SIZE**
4. **SIZE DISTRIBUTION:** Percent Gravel, Sand and Fines
5. **GRAIN SHAPE:** Angular, Subangular, Subrounded, Rounded
6. **MINERALOGY:** Rock Type For Gravel, Predominant Minerals in Sand
7. **COLOR:** Use Munsell Notation, if Possible
8. **ODOR:** None, Earthy, Organic
9. **MOISTURE CONTENT:** Dry, Moist, Wet, Saturated
10. **NATURAL DENSITY:** Loose Dense
11. **STRUCTURE:** Stratified, Lensed, Nonstratified
12. **CEMENTATION:** Weak, Strong
13. **LOCAL OR GEOLOGIC NAME**

NOTES

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM

FLUSH MOUNT



DRILLING INFORMATION:

1. Borehole Diameter= 8 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 ____ 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: 0.020
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 SURGE BLOCK and AIR LIFT
2. Time Spent on Well Development ?
   60 Minutes/~~Hours~~
3. Approximate Water Volume Removed ? 55 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 23 Ft. Date 3/ /04
Before Development 23.02 Ft. Date 3/ /04
After Development ____ Ft. Date 3/ /04

Driller/Firm GEO. GUZMAN / WDC Drill Rig Type CME 95 Date Installed 3/10/04

Drill Crew ART Well No. PC 126 Kerr-McGee Hydrologist ED KRISH

SOIL BORING LOG KM—5655-A

KERR-McGEE CORPORATION Hydrology Dept. Engineering Services	KM SUBSIDIARY KMCLLC	LOCATION HENDERSON, NV	BORING NUMBER PC 127

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER FOOT	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
1	0-1 ASPHALT + FILL									
	1-15 GRAVEL, sdy w/ tr silt, 60% volc pebbles to 2", SR-SA, w/ 30% vf-vcg SA sd and 10% silt		GP/GM							
5										
10										
15	15-24 SAND, gravelly brn, SA, vf-VC, 60% sand w/ 30% volc gravel to 1" w/ 10% silt		SM							DAMP @ 17' WET @ 19'
20										
24	24-30 GRAVEL, sdy, brn, pea gravel to 1/2", SA-SR w/ 30% vf-VC-SA sand to tr silt, 29-30 Caliche		GP/GM							WET
30	30-33 SILT, sdy, brn, w/ 30% vfg sand		ML							WET
33	33-35.5(TD) CLAY, silty, lt grn gry to grn wht.		CL							ML @ 33 DRY

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL; AUGER; ROCK CORE; THIN-WALLED TUBE; CONTINUOUS SAMPLER; NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

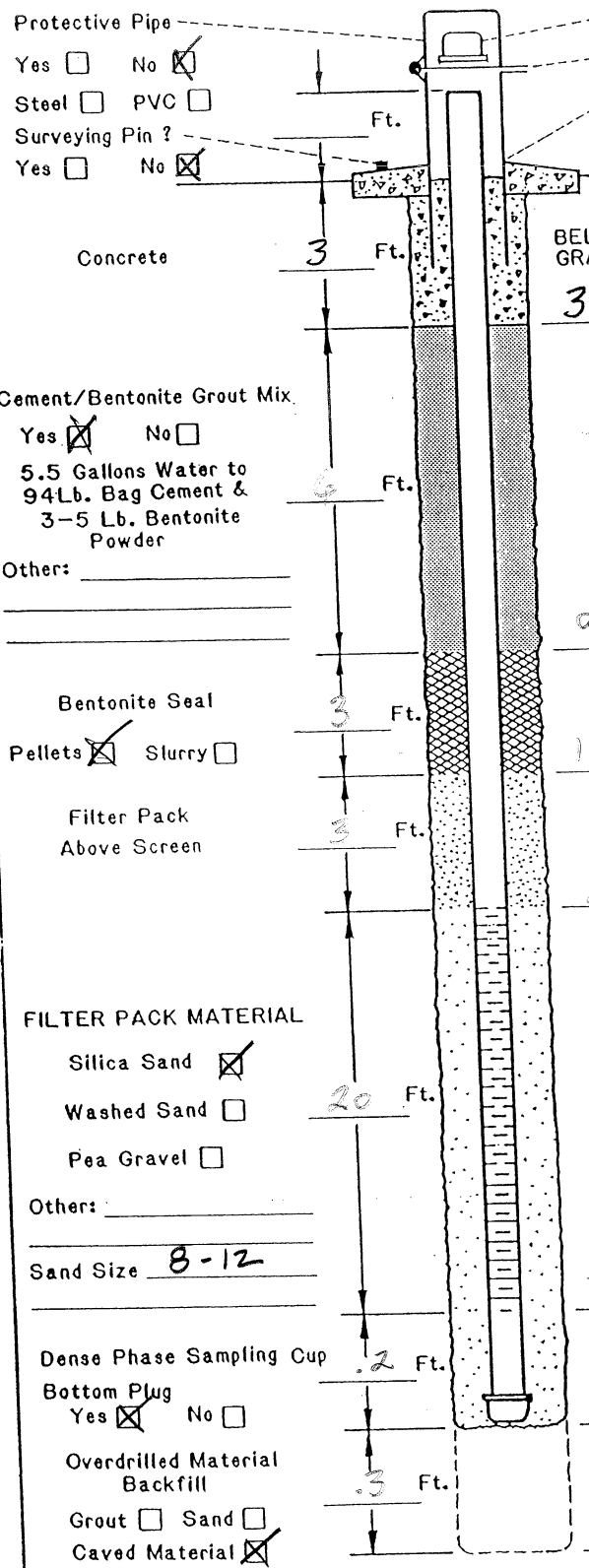
GRAPHIC LOG LEGEND

CLAY; SILT; SAND; GRAVEL; SILTY CLAY; CLAYEY SILT; DEBRIS FILL; HIGHLY ORGANIC (PEAT); SANDY CLAY; CLAYEY SAND

DATE DRILLED: 3/10/04
PAGE: 1 of 1
DRILLING METHOD: HSA
DRILLED BY: WDC
LOGGED BY: Ed Krish
EXISTING GRADE ELEVATION (FT. AMSL):
LOCATION OR GRID COORDINATES:

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM

FLUSH MOUNT



DRILLING INFORMATION:

1. Borehole Diameter= 8 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 ____ 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: 0.020
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 SURGE BLOCK and AIR LIFT
2. Time Spent on Well Development ?
   60 Minutes/~~Hours~~
3. Approximate Water Volume Removed ? 55 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 19 Ft. Date 3/10/04
Before Development ____ Ft. Date 3/ /04
After Development 18.78 Ft. Date 3/11/04

Driller/Firm GEO. GUZMAN / WDC Drill Rig Type CME 95 Date Installed 3/10/04

Drill Crew ART Well No. PC 127 Kerr-McGee Hydrologist ED KRISH

SOIL BORING LOG KM—5655-A

KERR-McGEE CORPORATION Hydrology Dept. Engineering Services	KM SUBSIDIARY KMCLLC	LOCATION HENDERSON, NV	BORING NUMBER PC 128

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER FOOT	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	0-1 ASPHALT & FILL									
1	1-13 GRAVEL, sdy & silty, brn, 60% vol pebbles to 3" w/ 20% vf-vc sd and 20% silt		GP/GM							
5										
10										
13										
13	13-26 SAND, gravelly w/ silt, 50% vf-vc sd w/ 30% pea gravel to 1/2 in and 20% silt		SW/GM							DAMP @ 15'
15										
20										WET @ 19
25	25-26 Caliche fixed pea gravel									
26	26-32 SAND, gravelly and very silty, Brn, 50% m-vcg sd w/ 20% pea gravel and 30% silt		SW/GM							WET
32	32-35 TD CLAY, silty, lt brn to lt red brn w/ 30% silt		CL							MC @ 32 DRY
35										

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL · AUGER · ROCK CORE · THIN-WALLED TUBE · CONTINUOUS SAMPLER · NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY · SILT · SAND · GRAVEL · SILTY CLAY · CLAYEY SILT · DEBRIS FILL · HIGHLY ORGANIC (PEAT) · SANDY CLAY · CLAYEY SAND

DATE DRILLED	PAGE
3/11/04	1 of 1

DRILLING METHOD: HSA

DRILLED BY: WDC

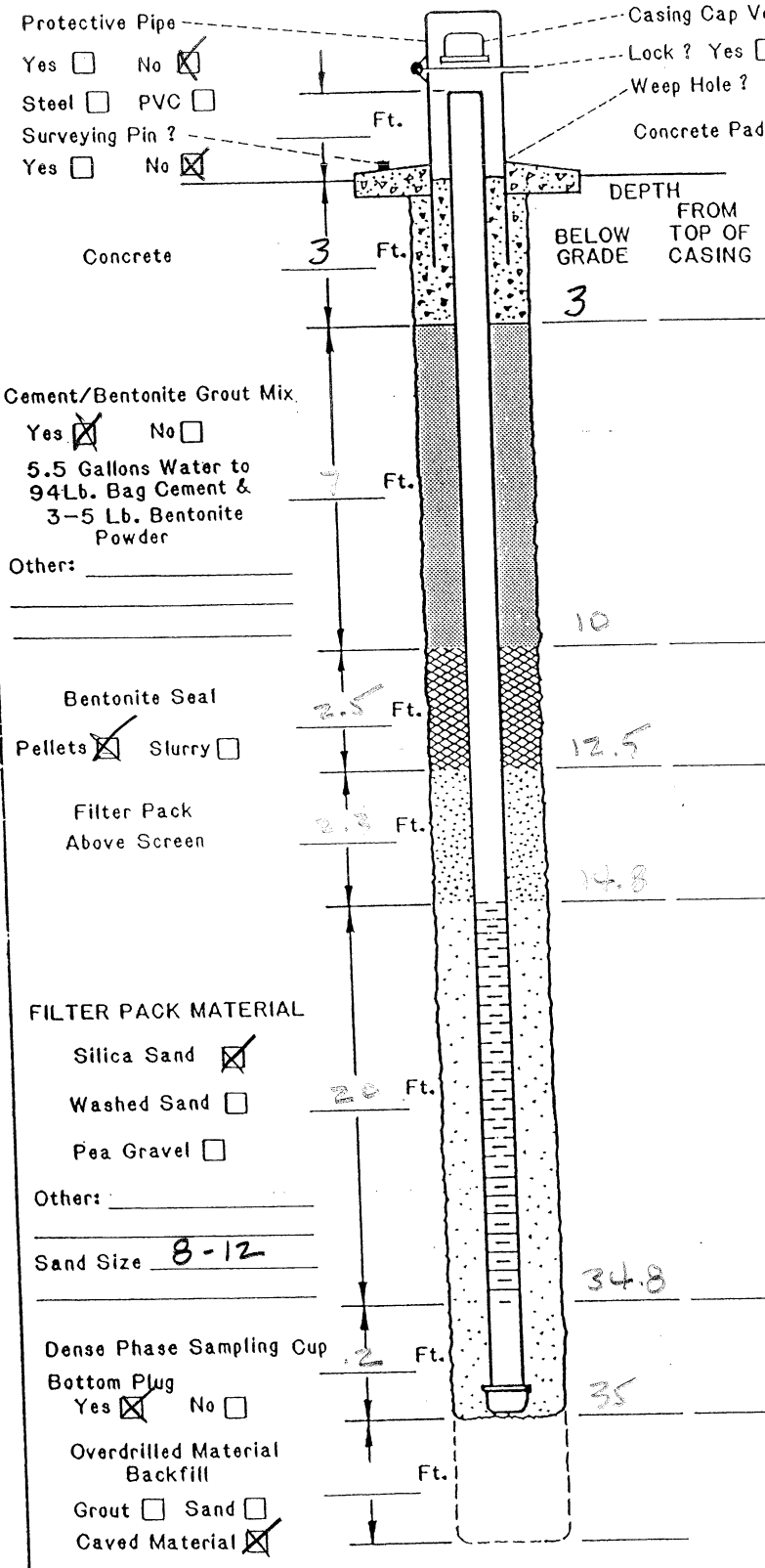
LOGGED BY: Ed Krish

EXISTING GRADE ELEVATION (FT. AMSL):

LOCATION OR GRID COORDINATES:

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM

FLUSH MOUNT



DRILLING INFORMATION:

1. Borehole Diameter= 8 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 _____ 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: 0.020
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 SURGE BLOCK and AIR LIFT
2. Time Spent on Well Development ?
   60 E Minutes/~~Hours~~
3. Approximate Water Volume Removed ? 55 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 19 Ft. Date 3/ 11 /04
Before Development 19.2 Ft. Date 3/ /04
After Development 18.75 Ft. Date 3/ 12 /04

Driller/Firm GEO. GUZMAN / WDC Drill Rig Type CME 95 Date Installed 3/ 11 /04

Drill Crew ART Well No. PC 128 Kerr-McGee Hydrologist ED KRISH

SOIL BORING LOG KM—5655-A

KERR-McGEE CORPORATION Hydrology Dept. Engineering Services	KM SUBSIDIARY KMCLLC	LOCATION HENDERSON, NV	BORING NUMBER PC 129

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER FOOT	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	6" ASPHALT & FILL									
1	1-16 GRAVEL, silty, brn, 50% subr pebbles & cobbles to 4" w/ 40% f-vcg sd and 10% SILT		GP/GM							
5										
10										
15	15-16 Calichified gravel									
16	16-38 SAND, gravelly and silty, brn. 50% m-vc sand w/ 25% pea gravel to 3/4" and 25% silt.									DAMP @ 16'
20										WET @ 18'
25	SOFT & WET		SM							
30										
35										
38										
39	38-39(TD) GRAVEL, sdy hard calichified		GP							WET NO MC

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED: 3/11/04

PAGE: 1 of 1

DRILLING METHOD: HSA

DRILLED BY: WDC

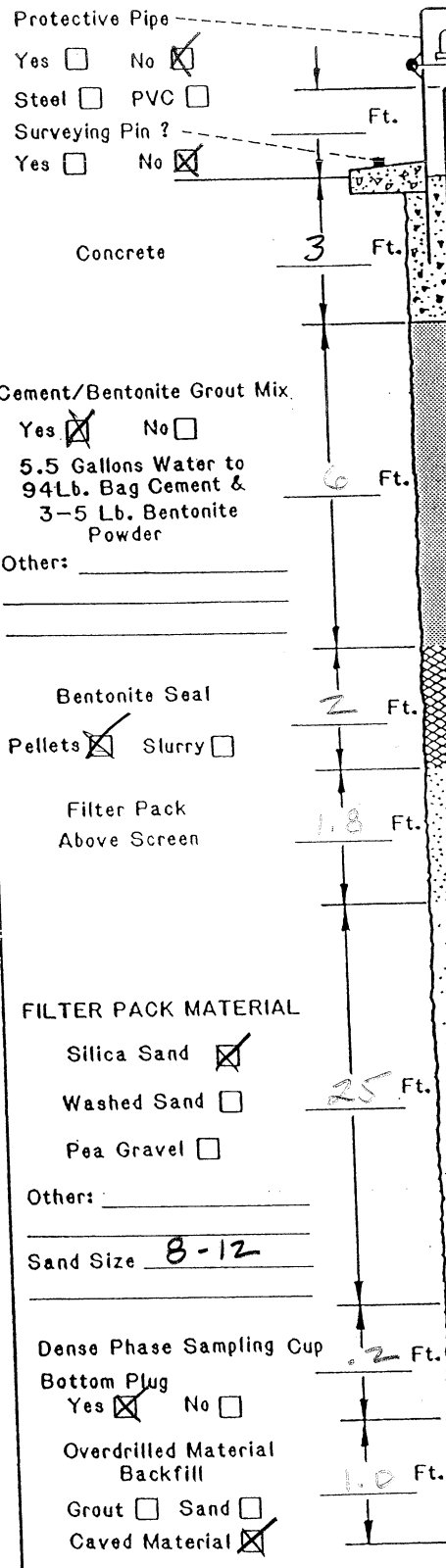
LOGGED BY: Ed Krish

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM

FLUSH MOUNT



Casing Cap Vent ? Yes ☐ No ☒

Lock ? Yes ☐ No ☒

Weep Hole ? Yes ☐ No ☒

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

	DEPTH BELOW GRADE	DEPTH FROM TOP OF CASING
	3	
	9	
	11	
	12.8	
	37.8	
	38	
	39	

DRILLING INFORMATION:

1. Borehole Diameter= 8 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 _____ 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: 0.020
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 SURGE BLOCK and AIR LIFT
2. Time Spent on Well Development ?
   60 F Minutes/~~Hours~~
3. Approximate Water Volume Removed ? 55 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 18 Ft. Date 3/11/04

Before Development _____ Ft. Date 3/ /04

After Development 18.66 Ft. Date 3/12/04

Driller/Firm GEO. GUZMAN / WDC Drill Rig Type CME 95 Date Installed 3/11/04

Drill Crew ART Well No. PC 120 Kerr-McGee Hydrologist ED KRISH

SOIL BORING LOG KM—5655-A

KERR-McGEE CORPORATION Hydrology Dept. Engineering Services	KM SUBSIDIARY KMCLLC	LOCATION HENDERSON, NV	BORING NUMBER PC 130

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER FOOT	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	0-1 ASPHALT & FILL									
1	1-15 GRAVEL, silty, silty, brn. 50% voic pebbles to 3" w/ 30% vf-vc g sand and 20% silt.		GM							
5										
10										
15	15-37 SAND, gravelly and silty, brn. 60% m-vc sd. w/ 20% pea gravel to 1/4" and 20% silt		SM							DAMP @ 15 WET @ 18
35	35-37 30-40% gravel									
37	37-40 GRAVEL, hard caliche/fill									WET

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL · AUGER · ROCK CORE · THIN-WALLED TUBE · CONTINUOUS SAMPLER · NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY · SILT · SAND · GRAVEL · SILTY CLAY · CLAYEY SILT · DEBRIS FILL · HIGHLY ORGANIC (PEAT) · SANDY CLAY · CLAYEY SAND · ☐ _____ · ☐ _____

DATE DRILLED: 3/11/04
PAGE: 1 of 2
DRILLING METHOD: HSA
DRILLED BY: WDC
LOGGED BY: Ed Krish
EXISTING GRADE ELEVATION (FT. AMSL)
LOCATION OR GRID COORDINATES

SOIL BORING LOG KM—5655-A

KERR-McGEE CORPORATION Hydrology Dept. Engineering Services	KM SUBSIDIARY KMCLLC	LOCATION HENDERSON, NV	BORING NUMBER PC 130

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER FOOT	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
45	45-48 SILT, sdy, brn, wet 30% vfg sd and v. minor (<10%) pea gravel		ML							WET
48	48-50 CLAY, silty, grn gry to ltgrn wht w/ 30% silt		CL							MC @ 48' DRY
50										

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL · AUGER · ROCK CORE · THIN-WALLED TUBE · CONTINUOUS SAMPLER · NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY · SILT · SAND · GRAVEL · SILTY CLAY · CLAYEY SILT · DEBRIS FILL · HIGHLY ORGANIC (PEAT) · SANDY CLAY · CLAYEY SAND · _____ · _____

DATE DRILLED	PAGE
3/11/04	2 of 2

DRILLING METHOD: HSA

DRILLED BY: WDC

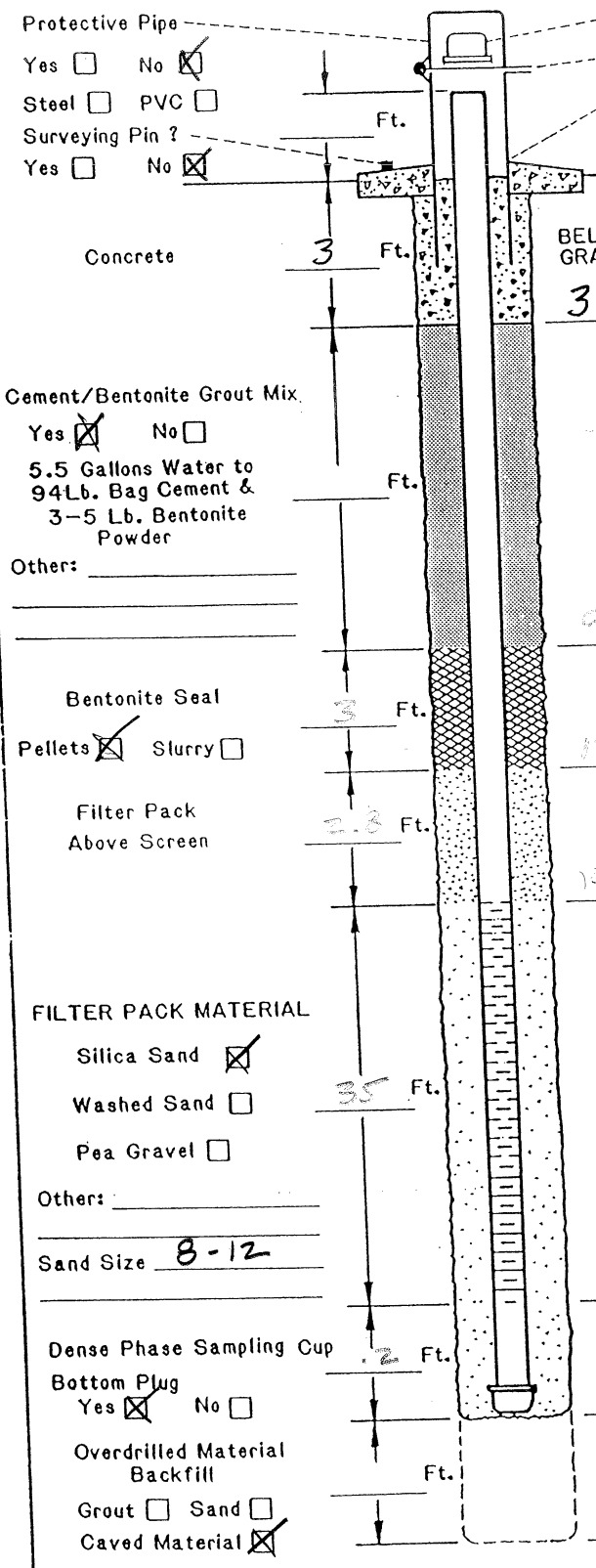
LOGGED BY: Ed Krish

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM

FLUSH MOUNT



DRILLING INFORMATION:

1. Borehole Diameter= 8 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 ____ 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: 0.020
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 SURGE BLOCK and AIR LIFT
2. Time Spent on Well Development ?
   60 E Minutes/~~Hours~~
3. Approximate Water Volume Removed ? 55 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 18 Ft. Date 3/11/04
Before Development ____ Ft. Date 3/11/04
After Development 19.30 Ft. Date 3/11/04

Driller/Firm GEO. GUZMAN / WDC Drill Rig Type CME 95 Date Installed 3/11/04

Drill Crew ART Well No. PC 130 Kerr-McGee Hydrologist ED KRISH

SOIL BORING LOG KM—5655-A

KERR-McGEE CORPORATION Hydrology Dept. Engineering Services	KM SUBSIDIARY KMCLLC	LOCATION HENDERSON, NV	BORING NUMBER PC 131

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER FOOT	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	0-2 ASPHALT & FILL									
	2-18 GRAVEL, sdy, slty, brn. 50% cobbles to 2" w/ 25% vf-vcg sd and 25% silt		GM							DAMP @ 10 WET @ 12
18	18-33 SAND, gravelly, silty, brn. 50% m-vc sd w/ 25% per gravel ¼-½" and 25% silt		SM							WET
33	33-36 GRAVEL, sdy, slty		GM							WET
35	35-36 Caliche fragments									
36	36-40 SILT, sdy, brn. 70% silt + 30% vf-g sd		ML							WET
40	@ 40 TD CLAY, grn		CL							DRY MC @ 40'

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED: 3/12/04 | PAGE: 1 of 1

DRILLING METHOD: HSA

DRILLED BY: WDC

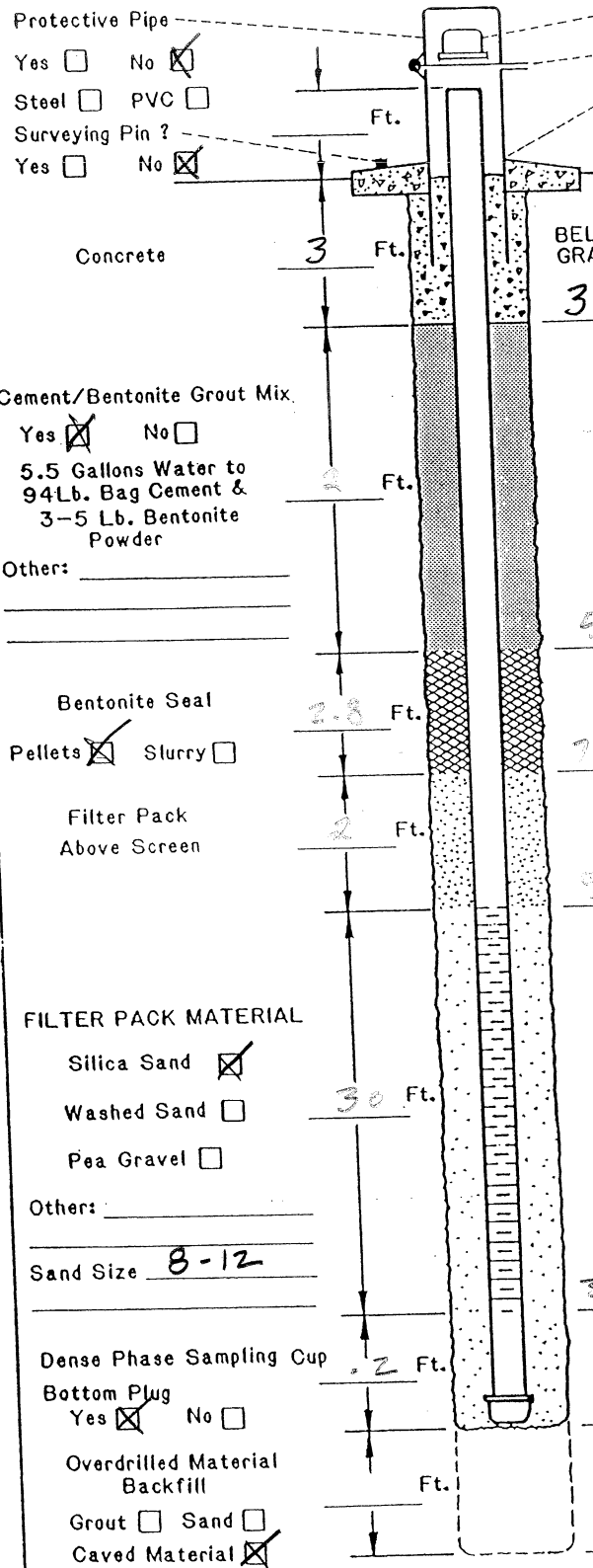
LOGGED BY: Ed Krish

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM

FLUSH MOUNT



DRILLING INFORMATION:

1. Borehole Diameter= 8 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 ____ 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: 0.020
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 SURGE BLOCK and AIR LIFT
2. Time Spent on Well Development ?
   60 E Minutes/~~Hours~~
3. Approximate Water Volume Removed ? 55 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 12 Ft. Date 3/12/04
Before Development 11.97 Ft. Date 3/15/04
After Development 11.78 Ft. Date 3/15/04

Driller/Firm GEO. GUZMAN / WDC Drill Rig Type CME 95 Date Installed 3/12/04

Drill Crew ART Well No. PC 13 Kerr-McGee Hydrologist ED KRISH

SOIL BORING LOG KM—5655-A

KERR-McGEE CORPORATION Hydrology Dept. Engineering Services	KM SUBSIDIARY KMCLLC	LOCATION HENDERSON, NV	BORING NUMBER PC 132

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER FOOT	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
1	0-1' ASPHALT & FILL									
	1-9 GRAVEL, silty, brn, 60% vole pebbles to 1½" w/ 40% vf-vc sd.		SP							
9	9-27 SAND, gravelly ANK brn, dm, 60% m-vc sd w/ 20% pea gravel to ½" and 20% silt		SM							DAMP @ 9 WET @ 11
20	SOFT & WET									
25										WET
27	27-29 Calcified gravel layer									
29	29-32 SILT, sdy w/ minor sm. pea gravel, 60% silt, 30% vf-f sd, 10% gravel		ML							WET
32	32-40 CLAY, silty ltgrn grey w/ 30% silt		CL							MC @ 32 DRY

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL · AUGER · ROCK CORE · THIN-WALLED TUBE · CONTINUOUS SAMPLER · NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY · SILT · SAND · GRAVEL · SILTY CLAY · CLAYEY SILT · DEBRIS FILL · HIGHLY ORGANIC (PEAT) · SANDY CLAY · CLAYEY SAND

DATE DRILLED	PAGE
3/15/04	1 of 1

DRILLING METHOD: HSA

DRILLED BY: WDC

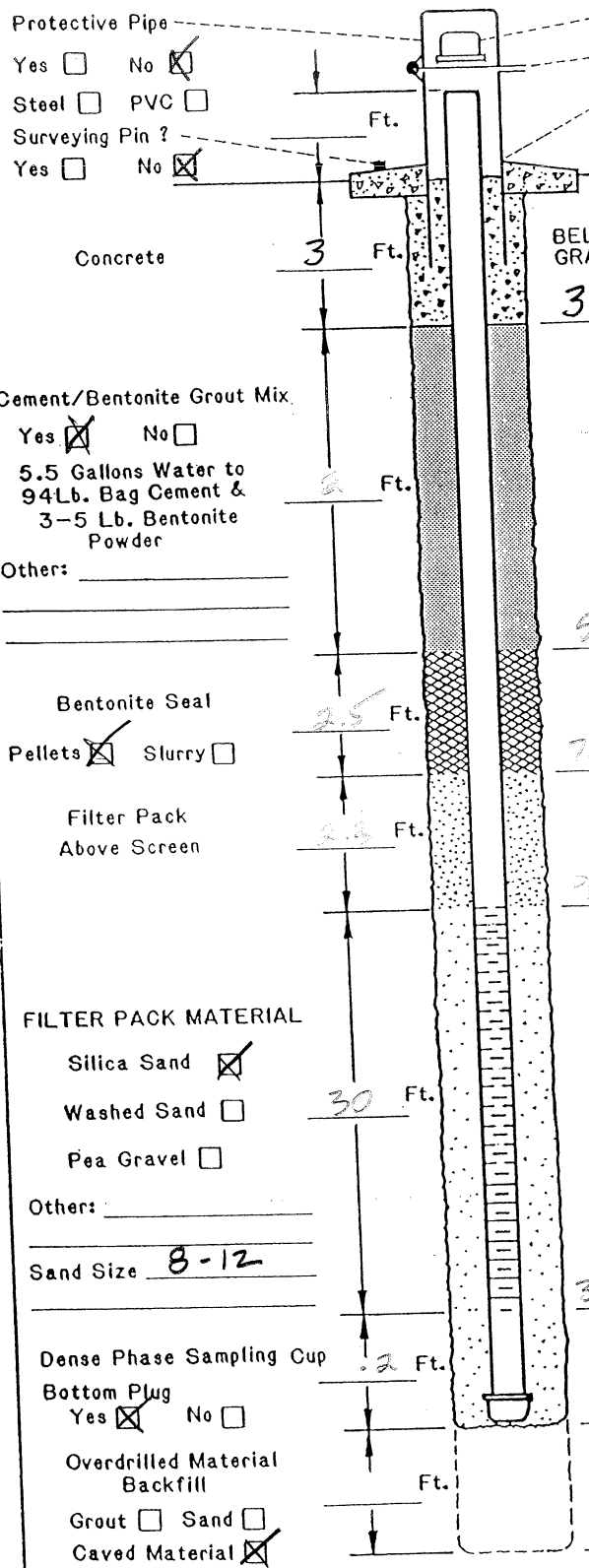
LOGGED BY: Ed Krish

EXISTING GRADE ELEVATION (FT. AMSL):

LOCATION OR GRID COORDINATES:

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM

FLUSH MOUNT



DRILLING INFORMATION:

1. Borehole Diameter= 8 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 ____ 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: 0.020
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 SURGE BLOCK and AIR LIFT
2. Time Spent on Well Development ?
   60 Minutes/~~Hours~~
3. Approximate Water Volume Removed ? 55 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 11 Ft. Date 3/15/04
Before Development ____ Ft. Date 3/ /04
After Development 10.26 Ft. Date 3/ /04

Driller/Firm GEO. GUZMAN / WDC Drill Rig Type CME 95 Date Installed 3/15/04
Drill Crew ART Well No. PC 32 Kerr-McGee Hydrologist ED KRISH

Recovery Wells

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMLC-LLC	LOCATION HENDERSON NV	BORING NUMBER PC-55

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	SILTY SAND BRN - RD BRN W/ GRAVEL WELL GRADED DRY									MOBILE B-61 12" HOLE
5										
10										
15	INCREASE GRAVELS 13-17'									
20	COBBLES 19-21'									
25	CLAYEY SAND W/ SM GRAVEL FIRM WET									DRILLS HARD 25 - 29'
30										
35	SILTY SAND W/ GRAVEL BRN - DK BRN WELL GRADED WET									
40										

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL | AUGER | ROCK CORE | THIN-WALLED TUBE | CONTINUOUS SAMPLER | NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY | DEBRIS FILL | SILT | HIGHLY ORGANIC (PEAT) | SAND | SANDY CLAY | GRAVEL | CLAYEY SAND | SILTY CLAY | _____ | CLAYEY SILT | _____

DATE DRILLED: 5/5/98 | PAGE: 1 of 2
DRILLING METHOD: HSA
DRILLED BY: WEBER
LOGGED BY: J. CRAWFORD
EXISTING GRADE ELEVATION (FT. AMSL):
LOCATION OR GRID COORDINATES:

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC-LLC	LOCATION HENDERSON NV	BORING NUMBER PC-55

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
45	SAND GRAY BRN W/ SMALL GRAVEL WELL GRADED		SM/ GM							
50	----? MUDDY CREEK? ----									POSSIBLE T/ MUDDY CREEK AT 52' BASED ON DRILL ACTION
55	TD 55									UNABLE TO SAMPLE DUE TO BOTTOM PLATE IN BIT. EXAMINATION OF AUGER FLIGHTS INCONCLUSIVE FOR MUDDY CREEK

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED: 5/5/98 | PAGE: 2 of 2

DRILLING METHOD: HSA

DRILLED BY: WEBER

LOGGED BY: J. CRAWFORD

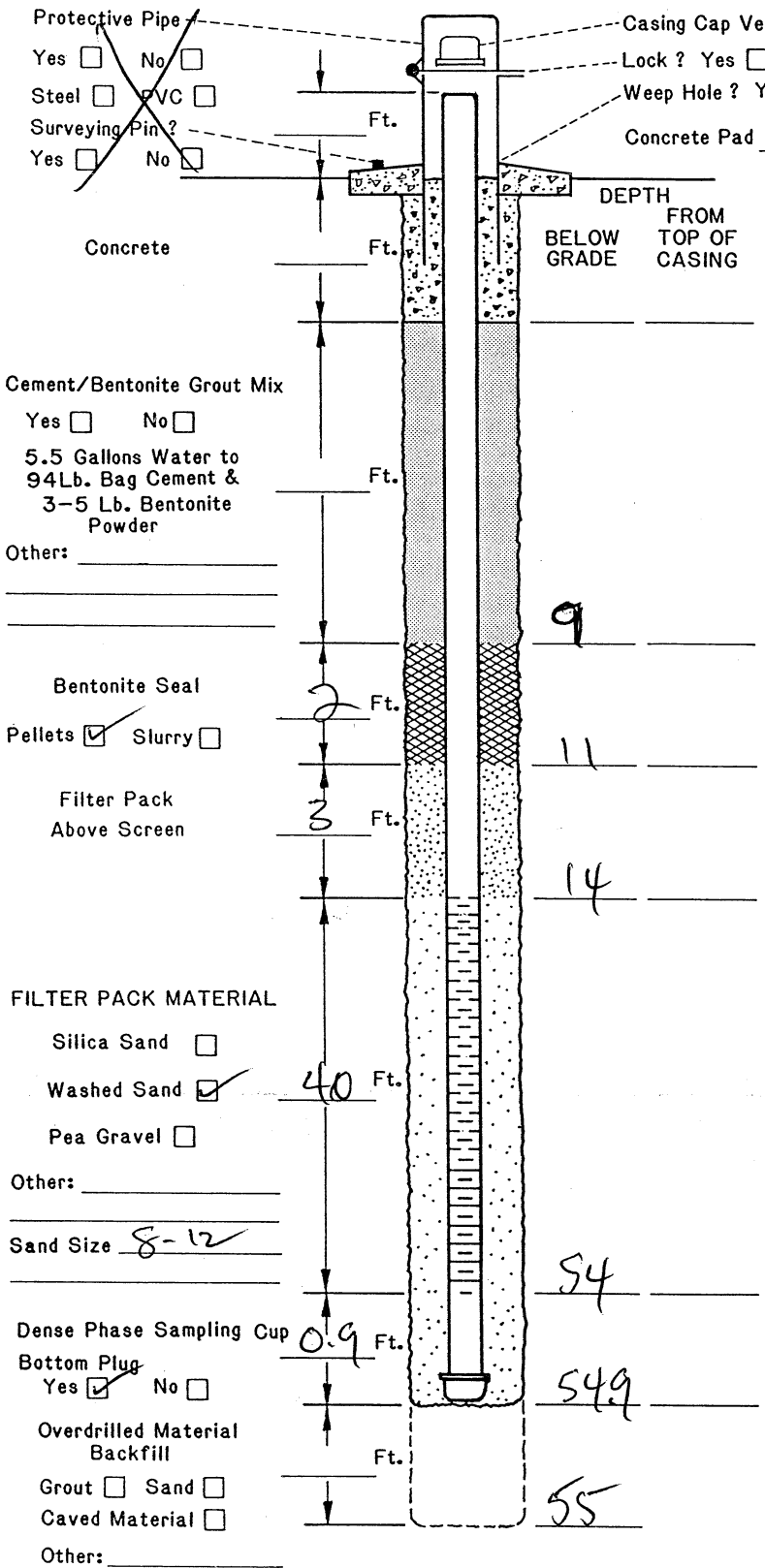
EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

3" BLG

FLUSH MOUNT

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM



DRILLING INFORMATION:

1. Borehole Diameter= 12 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 _____ 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 6 Inches, Screen 6 Inches.
5. Slot Size of Screen:
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 ?
   _____ / 1 Minutes/Hours
3. Approximate Water Volume Removed ? 100 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 ~18 Ft. Date 5/6/98
Before Development _____ Ft. Date _____
After Development 18.12 Ft. Date 5/11/98

Driller/Firm WEBER Drill Rig Type MOBILE B-61 Date Installed 5/6/98
Drill Crew LEE ROBERTSON Well No. PC 55 Kerr-McGee Hydrologist J. CRAWFORD

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY Chemical	LOCATION Henderson, NV	BORING NUMBER PC-70

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
5	Light brown silty fine sand with some gravel clasts No clay		SM					5-7	2'	Time 1005
								7-8.5	1'	1010
								8.5-10.5	2'	1020
10								10.5-11.5	1'	1025
								11.5-13.5	2'	1035
								13.5-14.5	1'	1040
15	poorly sorted fine-to-coarse sand and small Gravel, Lost @ 17ft		GM					14.5-19	2.5	1045
								17-18	1'	1105
								18-19	1'	1110
20										No recovery
								20-21	1'	1120 photo
								21-22	1'	1125 photo
								22-23	1'	1135
								23-24	1'	1140
25	Hard cemented sand and small Gravel		SM							No recovery
								25-27	2'	1150 photo
								27-28.5	1.5	1200
								28.5-30.5	2'	1210 photo
30	Alternating light brown fine sand and poorly sorted ~~fine-to-~~ coarse sand and small Gravel, Hard cemented at 34-35'		SM + GM					30.5-32	1.5	1220
								32-33.5	1.5	1225
35								33.5-35	1.5	1230
								35-36.5	1.5	1235 photo
								36.5-38	1.5	1240
40								38-40	0	1245 No recovery

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	PAGE
9-8-98	1 of 2
DRILLING METHOD: HSA / Split Spoon	
DRILLED BY: Gamboa Drilling	
LOGGED BY: S.L. Lower	
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY Chemical	LOCATION Henderson	BORING NUMBER PC-70

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
40	Alternating light brown sand and poorly sorted fine- to coarse-grained sand and silt-sized		SM SP GM				X	40-42	1.5	1300
							X	42-43.5	1.5	1505
45							X	43.5-45.5	2.0	1515
							X	45.5-47	0.5	1370
							X	47-48.5	0.5	1340
50							X	48.5-50	0.5	1400
	Gray clay-muddy Creek		CL				X	50-52	1.5	1420
55	TD 52'									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL · AUGER · ROCK CORE · THIN-WALLED TUBE · CONTINUOUS SAMPLER · NO RECOVERY

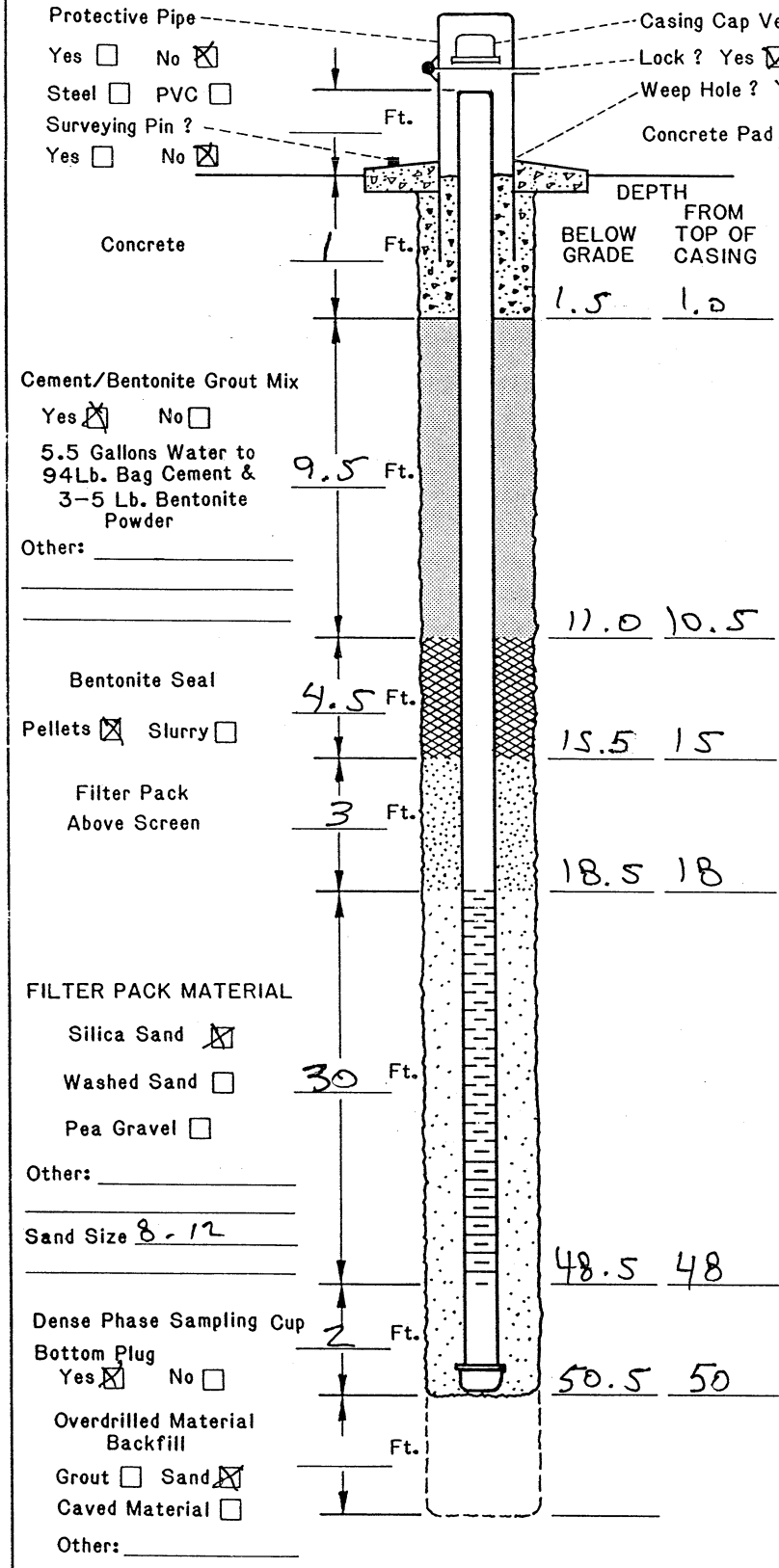
DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY · SILT · SAND · GRAVEL · SILTY CLAY · CLAYEY SILT · DEBRIS FILL · HIGHLY ORGANIC (PEAT) · SANDY CLAY · CLAYEY SAND

DATE DRILLED	9-8-93
PAGE	2 of 2
DRILLING METHOD	HSA w/ Split Spoon
DRILLED BY	Completion Drilling
LOGGED BY	S. Lower
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM



DRILLING INFORMATION:

1. Borehole Diameter= 12 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 _____ 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 Wire-Wrap PVC
4. Diameter of Casing and Well Screen:
   Casing 6 Inches, Screen 6 Inches.
5. Slot Size of Screen: 0.020
6. Type of Screen Perforation: Factory Slotted ☐
   Hacksaw ☐ Drilled ☐ Other Wire-Wrapped
7. Installed Protector Pipe w/Lock: Yes ☒ No ☐

WELL DEVELOPMENT INFORMATION:

1. How was Well Developed ? Bailing ☐ Pumping ☒
   Air Surging (Air or Nitrogen) ☒ Other Surging
2. Time Spent on Well Development ?
   _____ / 2 ~~Minutes~~ Hours
3. Approximate Water Volume Removed ? 1500 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 17 Ft. Date 9-8-98
Before Development 19.44 Ft. Date 9-12-98
After Development 18.73 Ft. Date 9-14-98

Driller/Firm Compliance Drilling Drill Rig Type Mobile Date Installed 9-12-98
Drill Crew _____ Well No. PC-70 Kerr-McGee Hydrologist Steven R. Lower

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON NV	BORING NUMBER PC 98

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
5	0-12 gravelly SAND, mod yell brn (10YR 5/4), 20-25% granules & sm. pebbles to 1" diam (volc) sp-mod silt in matrix (10-20%). Sand vf-vc, SR-SA		SP							
10										
12	12-16 silty sdy GRAVEL H brn (5YR 5/4), 20% silt 25% vf-vc A-SR sand. 50% volc granules to cobbles up to 6" diam Mod com caliche throughout		GW							damp @ 15
16										
20	13-16 v. hard, dense calichification									▽ @ 22'
25	16-34 silty gravelly SAND, mod brn (5YR 4/4), 20-25% silt, 20-25% granules and sm pebbles to 3/4". 50% vf-vc A-SR sand		SW							
30										
34										
34	34-37 silty SAND, lt yell brn (10YR 6/4). vf-fg w/ minor mg, SR-SA. 25-30% silt. Mod com m-vc caliche nodules. Very calcareous		SM							
37			GC-ML							

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL · AUGER · ROCK CORE · THIN-WALLED TUBE · CONTINUOUS SAMPLER · NO RECOVERY

- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY · SILT · SAND · GRAVEL · SILTY CLAY · CLAYEY SILT · DEBRIS FILL · HIGHLY ORGANIC (PEAT) · SANDY CLAY · CLAYEY SAND

DATE DRILLED	5-16-00
PAGE	1 of 2
DRILLING METHOD	HSA
DRILLED BY	COMPLIANCE
LOGGED BY	ED KRISH
EXISTING GRADE ELEVATION (FT AMSL)	
LOCATION OR GRID COORDINATES	

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON, NV	BORING NUMBER PC 98

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
41	37-41 sdy grav SILT/silty grav SAND w/ 15% dissem granules to 1/8-1/4", mod grg orange pink (5YR 6/2). Contains 25-50% vf-f sd in silt/clay matrix. 10-20% vdc +1s granules to 1/8-1/4". Very calcareous w/ mod c-vc caliche nodules.		CL							MC @ 41'
45	41-45 silty CLAY, lt grn gry (5GY 8/1) and yell gry (5G 8/1). 25% silt, v. calcareous w/ minor m-vc sized caliche nodules dissem.									
	45' TD									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

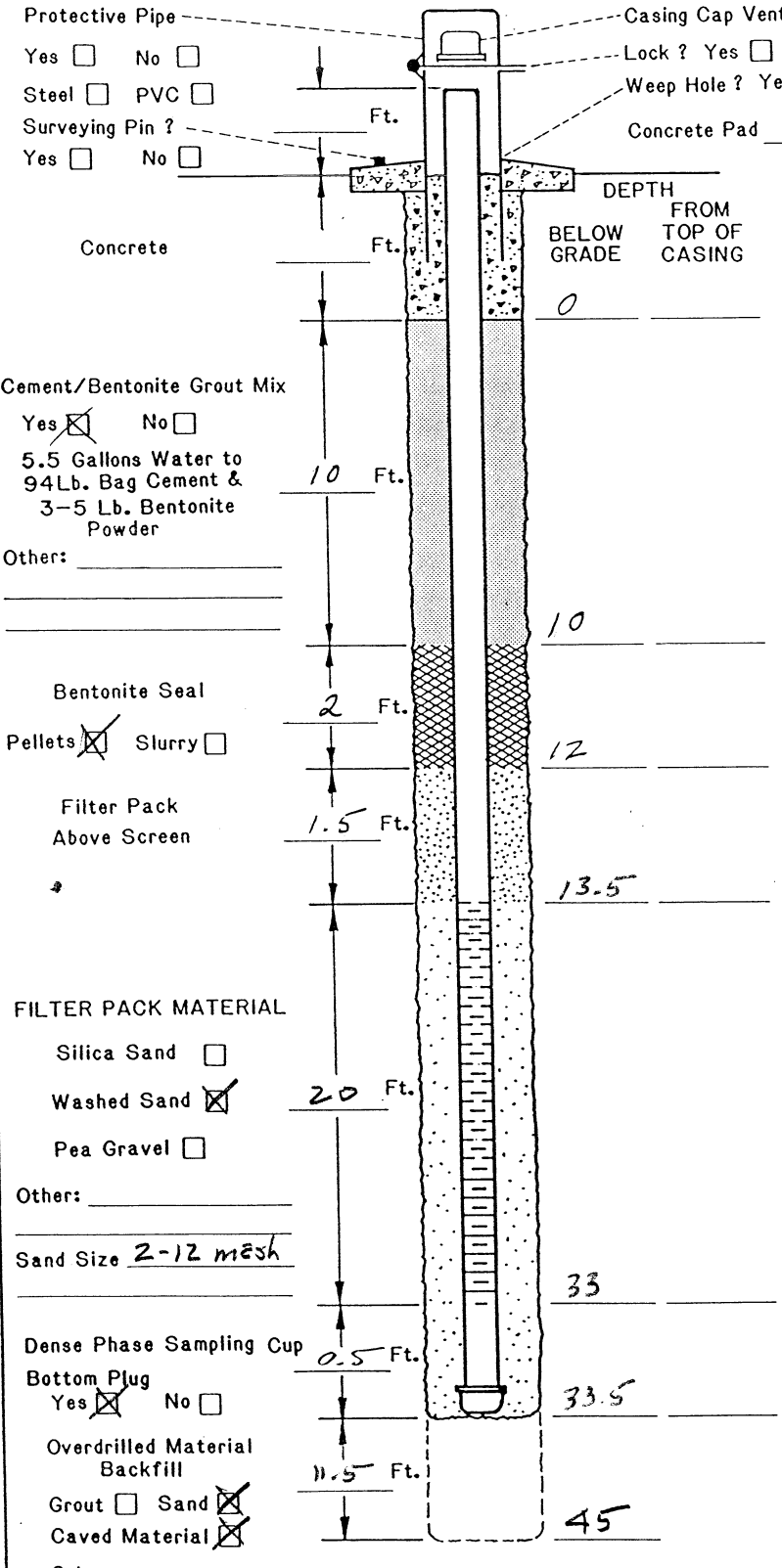
GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	5-16-00
PAGE	2 of 2
DRILLING METHOD	HSA
DRILLED BY	COMPLIANCE
LOGGED BY	ED KRISH
EXISTING GRADE ELEVATION (FT AMSL)	
LOCATION OR GRID COORDINATES	

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM

FLUSH MOUNT



DRILLING INFORMATION:

1. Borehole Diameter= 10.5 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 _____ 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 4 Inches, Screen 4 Inches.
5. Slot Size of Screen:
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 ?
   _____ / 60 Minutes/Hours
3. Approximate Water Volume Removed ? _____ 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 22 Ft. Date 5-16-00
Before Development 14.01 Ft. Date 5-17-00
After Development _____ Ft. Date _____

Driller/Firm COMPLIANCE Drill Rig Type Mobile B-59 Date Installed 5-17-00
Drill Crew Loya Well No. PC 98 Kerr-McGee Hydrologist ED KRUSH

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCC	LOCATION Henderson NV	BORING NUMBER PC 98R

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	0-5 gravelly SAND grysh brn w/10% silt, 20-30% granules-pea gravel to 3/4". vf-vc SA sd		SP							
5	5-9 SAND, gry brn w/10% silt and 5-10% volc granules to 1/4", f-vc, SA sand		SW							
9			GW							
	9-10 sdy GRAVEL (to 1") 25-35% vf-vc sd		SW							damp @ 12'
12	10-12 SAND, brn, 10% silt, 5% granules. f-vc volc, SA sand									
15	12-24 sdy GRAVEL brn. w/5-10% silt, 25% vf-vc, SA-A sand. Granules to pea gravel, A-SA. 1/2"-3/4" w/ minor 3/4"-2" Locally caliche cemented.		GW	6 30 15			X	20'-21.5'	50%	▽ @ 18'
20										
24	16'-20' hard. Com caliche cement		SP	25 50			X	25-26	75%	
26	24-26 SAND. gry brn, SR, clean, f-mg w/c-vcg									
30	26-34 sdy GRAVEL gry brn, 10-15% silt, 25-30% vf-vc, SA sand in granule-pea gravel to 1/2"-3/4"		GW	22 29 30			X	30'-31.5'	80%	
34	29-30 - cobbles up to 7"									
	34-40.5 gravelly silty SAND 20-30% silt and 10-15% volc granules to 1/4", brn. com. dissem sd-size		GM/SM	12 13 31			X	35'-36.5'	100%	

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND

DATE DRILLED	8-8-00
PAGE	1 of 2
DRILLING METHOD	PERCUSSION
DRILLED BY	LAYNE
LOGGED BY	ED KRISH
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCC	LOCATION HENDERSON NV	BORING NUMBER PC 98R

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
40.5	caliche nodules. Very calcareous. Sand is vf-f w/minor mg, SA-SR		CL							
	40.5-41.5 silty CLAY lt grn, w/ dissem sm gypsum xtals									
	TD 41.5'									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL · AUGER · ROCK CORE · THIN-WALLED TUBE · CONTINUOUS SAMPLER · NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

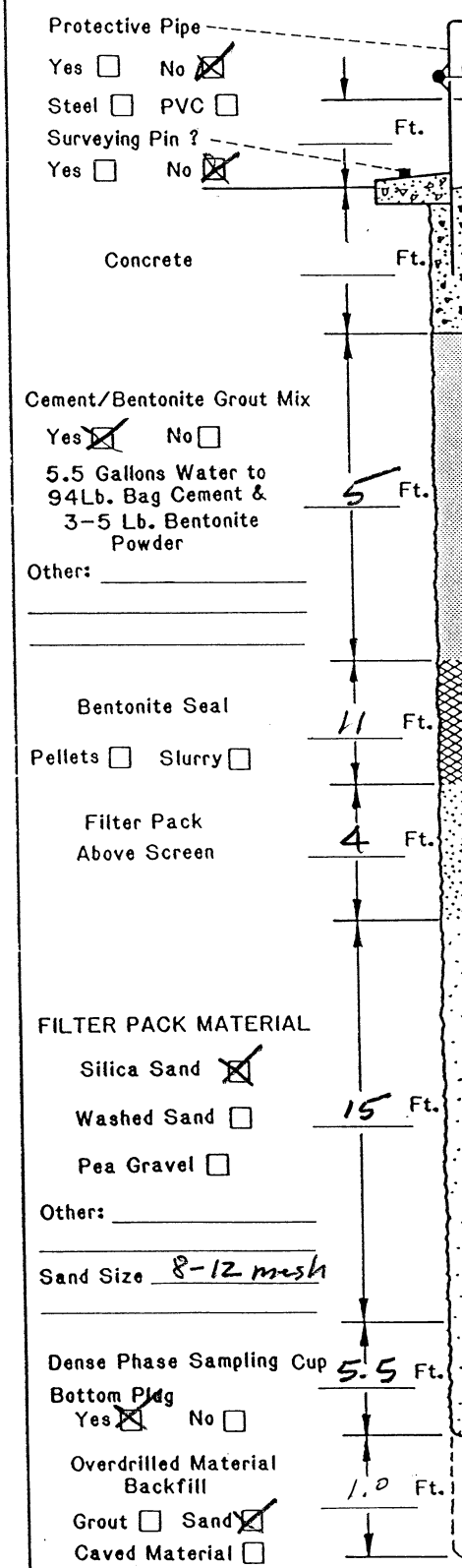
CLAY · SILT · SAND · GRAVEL · SILTY CLAY · CLAYEY SILT · DEBRIS FILL · HIGHLY ORGANIC (PEAT) · SANDY CLAY · CLAYEY SAND

DATE DRILLED	PAGE
8-8-00	2 of 2

DRILLING METHOD: Percussion
DRILLED BY: LAYNE
LOGGED BY: ED KRISH
EXISTING GRADE ELEVATION (FT AMSL):
LOCATION OR GRID COORDINATES:

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM

FLUSH MOUNT



DRILLING INFORMATION:

1. Borehole Diameter= 9 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 _____ 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 4 Inches, Screen 4 Inches.
5. Slot Size of Screen: 0.040
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 ?
   _____ / 120 Minutes/~~Hours~~
3. Approximate Water Volume Removed ? _____ 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 faint pesticide
7. Did Water have any Color ? Yes ☐ No ☒
   If Yes , Describe _____

WATER LEVEL INFORMATION:

Water Level Summary (From Top of Casing)

During Drilling 18 Ft. Date 8-8-00

Before Development _____ Ft. Date _____

After Development _____ Ft. Date _____

Driller/Firm _____ Drill Rig Type AP-1000 Date Installed 8-8-00

Drill Crew _____ Well No. PC 98R Kerr-McGee Hydrologist ED KRISH

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON, NV	BORING NUMBER PC 99

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
5	0 – 11 sdy GRAVEL, pale brn (5YR 5/2), clean – only 10% silt, 30% SA-SR, vf-vc sd. 60% volc granules and sm. pebbles to 2"		GP							▽ @ 3'
11										
15	11 – 48 silty gravelly SAND, pale yell brn (10YR 6/2). Var. amts of silt in matrix (20-60%). 20-40% volc granules and sm pebbles to 3/4". Sand is poorly sorted, SA-SR, vf-vc		SP							
20										
25	11 – 30 20% silt in matrix. Locally 60% sdy silt in thin stringers									
30	30 – 48 inc in silt to 30%									
35	30 – 36 gravel zone, hard, calichified. Volc pebbles up to 3" diam.									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL · AUGER · ROCK CORE · THIN-WALLED TUBE · CONTINUOUS SAMPLER · NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY · SILT · SAND · GRAVEL · SILTY CLAY · CLAYEY SILT · DEBRIS FILL · HIGHLY ORGANIC (PEAT) · SANDY CLAY · CLAYEY SAND · _____ · _____

DATE DRILLED	PAGE
5-17-00	1 of 2

DRILLING METHOD: HSA

DRILLED BY: Compliance

LOGGED BY: ED KRISH

EXISTING GRADE ELEVATION (FT AMSL)

LOCATION OR GRID COORDINATES

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON, NV	BORING NUMBER PC 99

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
45			SP							
48										
49	48-49 silty SAND, pale yell brn (10YR6/2). 30-40% silt in matrix. Mod well sorted vf-f sand. Contains 10% dissem volc granules to 1/8"		SM							
51	49-51 sdy GRAVEL, hard, well calichified. Refusal @ 51'		GP							
	TD 51'									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL | AUGER | ROCK CORE | THIN-WALLED TUBE | CONTINUOUS SAMPLER | NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY | DEBRIS FILL | SILT | HIGHLY ORGANIC (PEAT) | SAND | SANDY CLAY | GRAVEL | CLAYEY SAND | SILTY CLAY | _____ | CLAYEY SILT | _____

DATE DRILLED	PAGE
5-18-00	2 of 2

DRILLING METHOD: HSA

DRILLED BY: Compliance

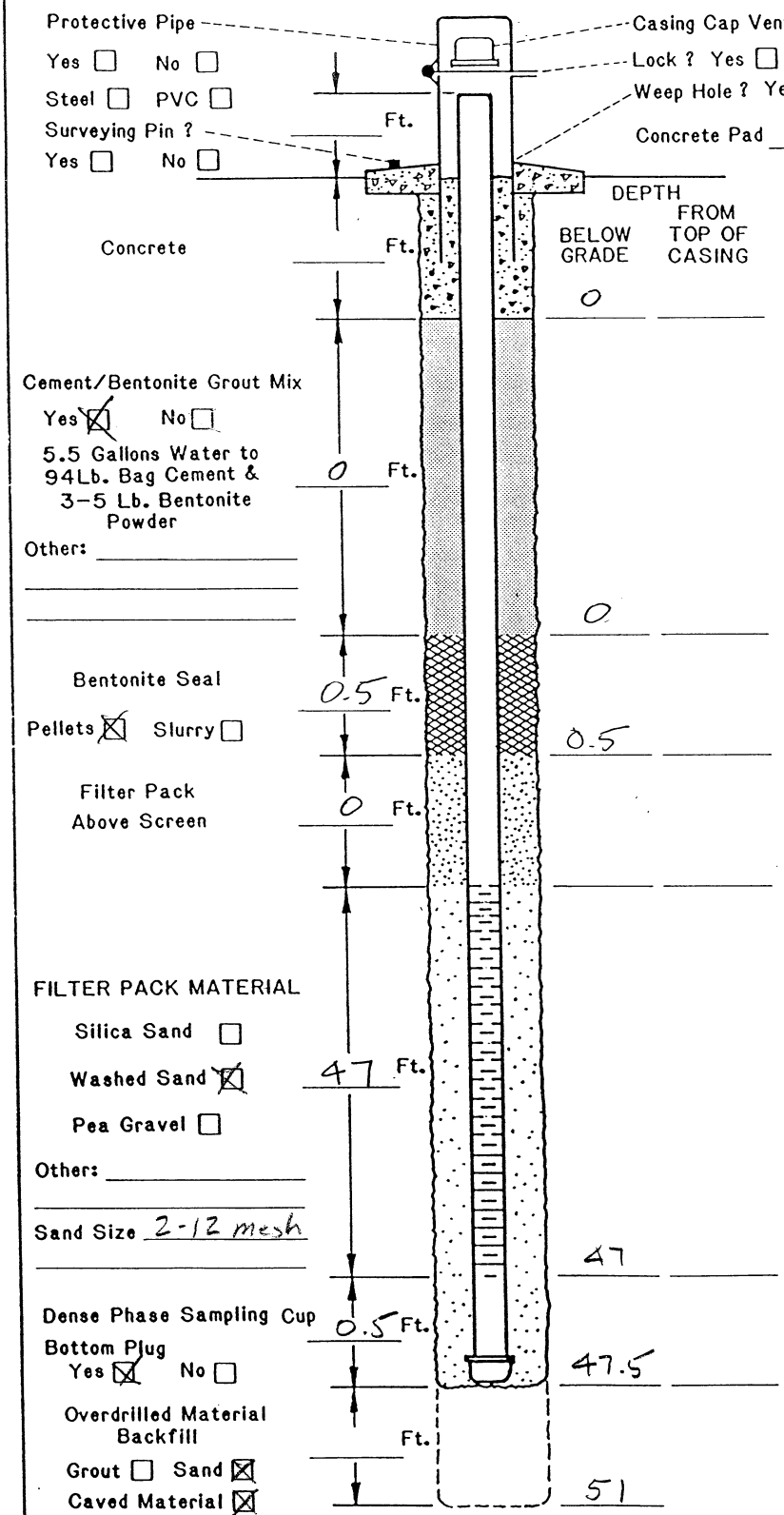
LOGGED BY: ED KRISH

EXISTING GRADE ELEVATION (FT AMSL)

LOCATION OR GRID COORDINATES

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM

FLUSH MOUNT



DRILLING INFORMATION:

1. Borehole Diameter= 10 1/2 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 ____ 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 4 Inches, Screen 4 Inches.
5. Slot Size of Screen: 0.020
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 ?
   ____ / 60 Minutes/Hours
3. Approximate Water Volume Removed ? ____ 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 3 Ft. Date 5-17-00

Before Development 1.35 Ft. Date 5-18-00

After Development ____ Ft. Date ____

Driller/Firm COMPLIANCE Drill Rig Type Mobile B-59 Date Installed 5-17-00

Drill Crew LOYA Well No. PC 99 Kerr-McGee Hydrologist ED KRISH

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCC	LOCATION Henderson NV	BORING NUMBER PC 99R

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	0-6 SDY GRAVEL. Brn, vf-vc sd matrix (40%) w/ volc gravel 1/8"-1" w/minor 2"-3". Sparce silt (10%)		GW							▽ @3 3'-6' perched WTR
6				7 4 14			X	6'-7.5'	70%	6'-12' damp-partly dry
10	6'-20' silty SAND lt brn. vf-fg, SA, w/ 30% silt in matrix. Locally com-abu sd size caliche nodules scattered throughout 13-18 abu caliche nodules		SM							below 12' wet
15				6 7 8			X	16'-17.5	100%	
20	20-24 silty gravelly SAND. brown. 20-30% silt, 10-20% volc. A-SA pea gravel in vf-vc. SA sand		GM/SM							
24	24-30 sdy GRAVEL brn. 5% silt, 30-40% vf-vc SA sd in volc pea gravel to 1"		GW	5/18"			X	26'-27.5	0%	major WTR zone
30	30-34 gravelly SAND, brn 10-15% volc A-SA pea gravel in m-cg sd w/ minor f-vf & vc, 10% silt		SW							
34	34-42 sdy GRAVEL, pale brn. Abu SR-R ls, & caliche clasts to 1½" (60% ls & 40% volc. 20-25% SA-SR f-vc sand. Locally calichified		GW							WITH LS.
42										

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND

DATE DRILLED	PAGE
8/8/00	1 of 2
DRILLING METHOD: PERCUSSION	
DRILLED BY: LAYNE	
LOGGED BY: Ed KRISH	
EXISTING GRADE ELEVATION (FT AMSL):	
LOCATION OR GRID COORDINATES:	

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCC	LOCATION Henderson NV	BORING NUMBER PC 99R

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
			GW							
42	42-52 sdy GRAVEL brn. Dec in ls clasts to 10-20% w/ inc in volc. ave size 1/4"-1½" w/ minor local 4"-7". 20% f-vcg SA-SR sand		GW	30 50/ 4"			X	46- 47.5	50%	w/o LS.
50	42-46 ls w/or caliche clasts present									
52	46-52 volc clasts only		SM							
	48-50 more silty to 20%		CL							MUDDY CK @ 52'
54	50-52 Hard, totally calichified sdy pea/ gravels									
	52-54 silty clay, lt grn w/ sm gypsum xtals throughout									
	TD 54'									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL · AUGER · ROCK CORE · THIN-WALLED TUBE · CONTINUOUS SAMPLER · NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

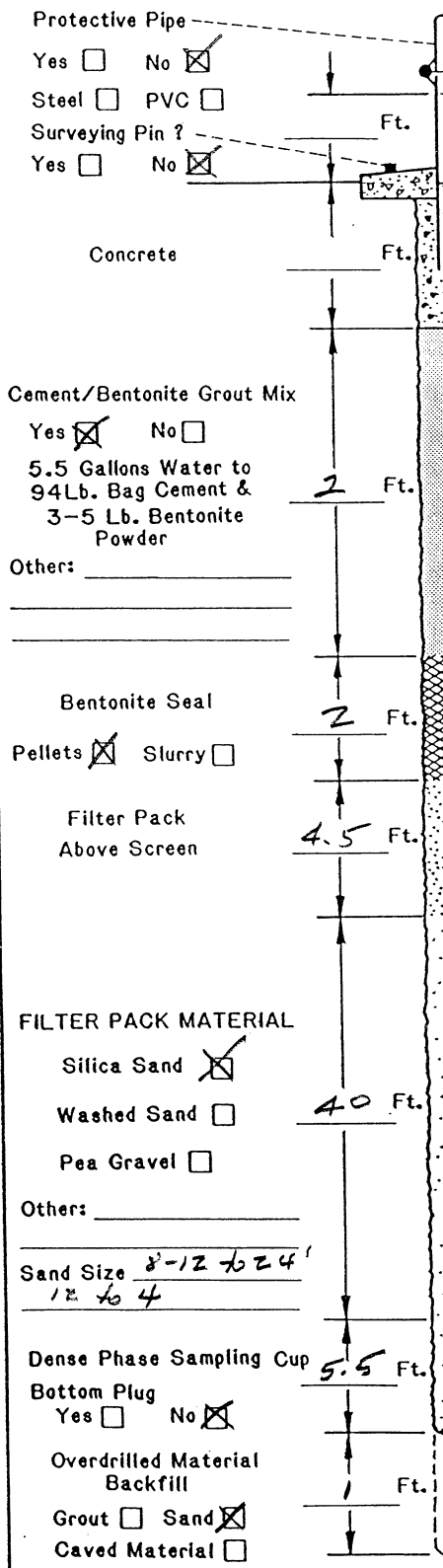
GRAPHIC LOG LEGEND

CLAY · DEBRIS FILL · SILT · HIGHLY ORGANIC (PEAT) · SAND · SANDY CLAY · GRAVEL · CLAYEY SAND · SILTY CLAY · CLAYEY SILT

DATE DRILLED	PAGE
8/8/00	2 of 2
DRILLING METHOD: Percussion	
DRILLED BY: Layne	
LOGGED BY: Ed Krish	
EXISTING GRADE ELEVATION (FT AMSL)	
LOCATION OR GRID COORDINATES	

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM

FLUSH MOUNT



DRILLING INFORMATION:

1. Borehole Diameter= 9 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 ____ 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 4 Inches, Screen 4 Inches.
5. Slot Size of Screen: 0.04
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 ?
   ____ / 60 Minutes ~~Hours~~
3. Approximate Water Volume Removed ? 2500 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 3 Ft. Date 8-8-00
Before Development 2 Ft. Date 8-9-00
After Development ____ Ft. Date ____

Driller/Firm Layne
Drill Rig Type AP-1000
Date Installed 8-8-00
Drill Crew ____
Well No. PC 99R
Kerr-McGee Hydrologist Ed Krish

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON, NV	BORING NUMBER PC 99R2

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
	HOLE PC-99R2 DRILLED 10' EAST OF PC-99R SEE PC-99R2 FOR LITHOLOGY									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL · AUGER · ROCK CORE · THIN-WALLED TUBE · CONTINUOUS SAMPLER · NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

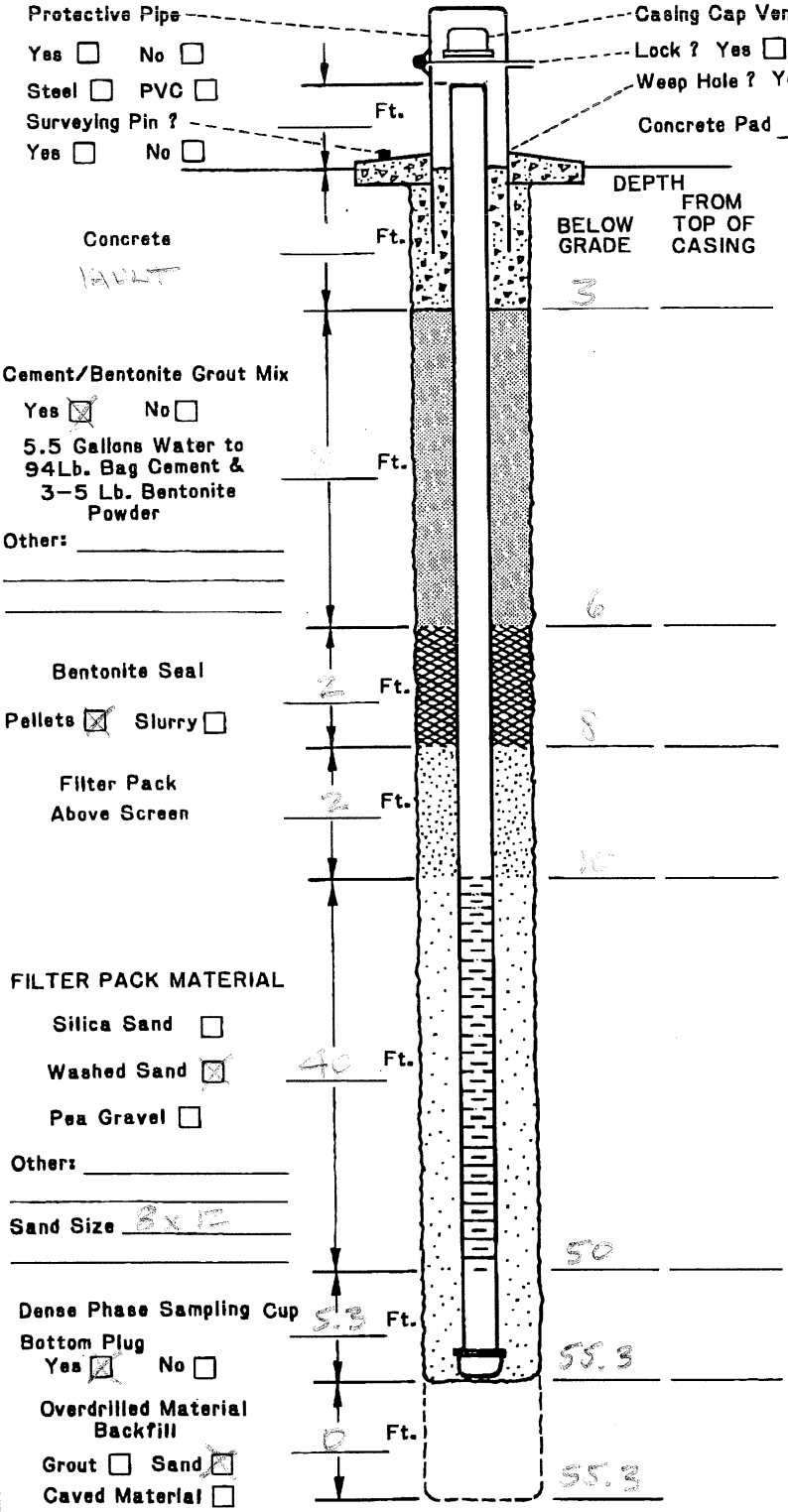
CLAY · SILT · SAND · GRAVEL · SILTY CLAY · CLAYEY SILT · DEBRIS FILL · HIGHLY ORGANIC (PEAT) · SANDY CLAY · CLAYEY SAND

DATE DRILLED	PAGE
5-24-01	1 of 1

DRILLING METHOD: PERCUSSION
DRILLED BY: LAYNE
LOGGED BY: ED KRISH
EXISTING GRADE ELEVATION (FT. AMSL):
LOCATION OR GRID COORDINATES:

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM

FLUSH MOUNT IN VAULT



DRILLING INFORMATION:

1. Borehole Diameter= 11.5 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 ____ 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 6 Inches, Screen 6 Inches.
5. Slot Size of Screen: 0.040
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 ?
   ____ / 60 Minutes/Hours
3. Approximate Water Volume Removed ? ____ 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 ____

Driller/Firm MARTIN / LAYNE Drill Rig Type AP-1000 Date Installed 5-24-01
Drill Crew MARIAN / RON Well No. PC-9982 Kerr-McGee Hydrologist ED LORENZ

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMCC LLC	LOCATION HENDERSON	BORING NUMBER PC 99R3

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
5	0-5 SAND, lt brn, vf-vc w/ 10% 1" gravel and 10-20% silt		SW							0'-3' damp 3'-11' wet/moist
9	5'-9' GRAVEL, sdy w/ 10% silt. Volc gravel to 1½" w/ 20-30% vf-vc sd. brn		GW							
11	9'-11' SAND, slty, brn vf-m		SM							11-17 only damp
15	11-18 SAND, slty & SILT sdy, brn, vf-m, high % of silt (30-70%)		SM/ ML							@17' wet/moist
18										
25	18-52 GRAVEL, sdy brn, w/thin slty SAND layers Stacked sequence of fining-upward channel deposits. GRAVEL → slty sand Gravels, ¼"-1" w/minor cobble zones Sand, vf-vc, 20-60% silt 20-40% in thin layers (slty 28'-29') 32-39 lg volc gravel to 6"-8"		GP							
30										
35										

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	PAGE
7-17-01	1 of 2

DRILLING METHOD: PERCUSSION

DRILLED BY: LAYNE

LOGGED BY: E. KRISH

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON, NV	BORING NUMBER PC99R3

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
45	43-52 - gravel to 1-2" w/ 10-30% sand, vf-vc		GP							
50	51-52 v. silty									
52	52-58 CLAY, silty, grnish		CL							TOP MC @ 52' (damp)
55										
58	TD 58'									

EXPLANATION

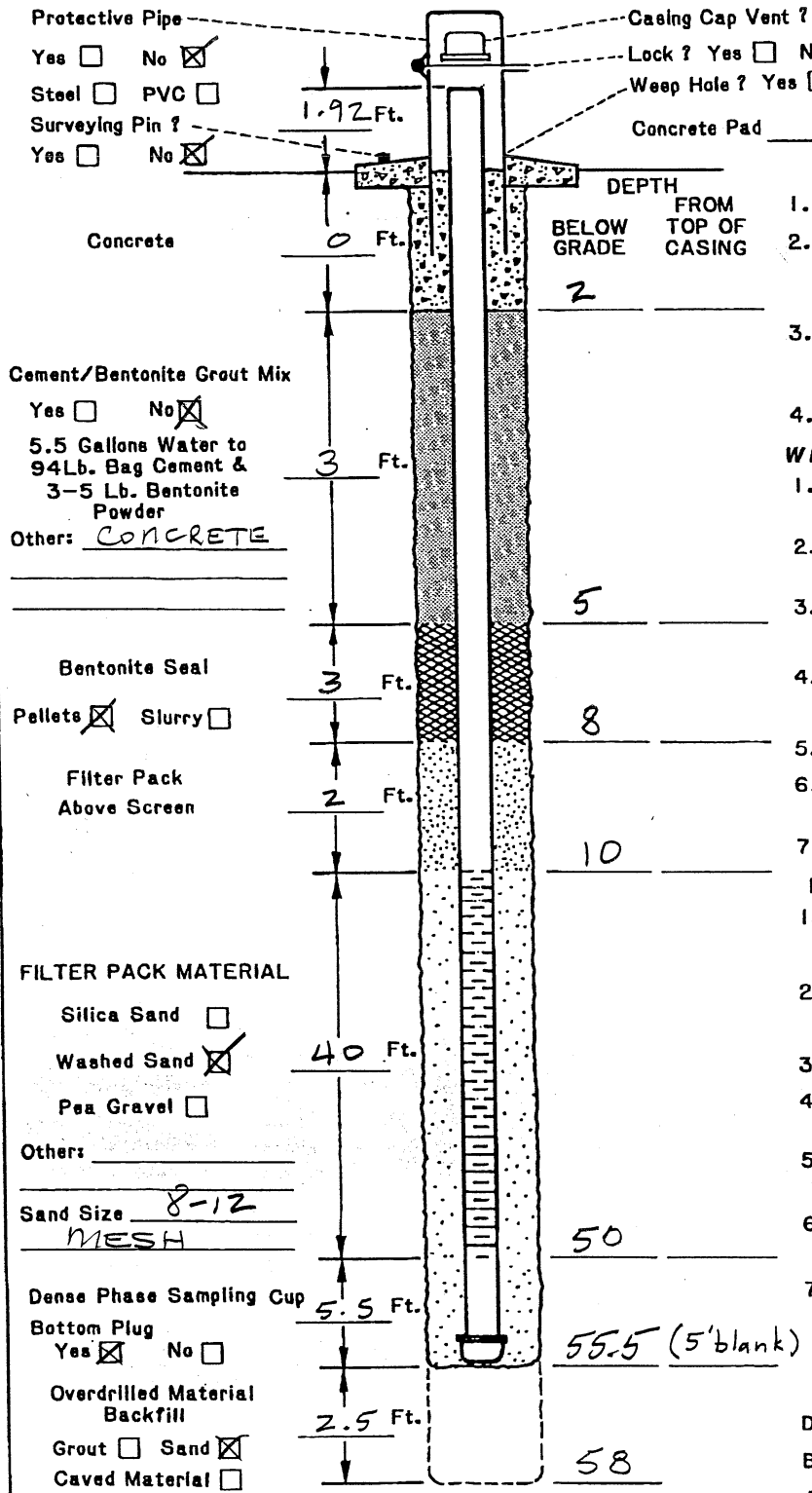
- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- ☐ _____
- ☐ _____

DATE DRILLED	PAGE
7-17-01	2 of 2
DRILLING METHOD	
DRILLED BY	
LOGGED BY	
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM



DRILLING INFORMATION:

1. Borehole Diameter= 13 1/4 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 _____ 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 8 Inches, Screen 8 Inches.
5. Slot Size of Screen: 0.040
6. Type of Screen Perforation: Factory Slotted ☒
   Hacksaw ☐ Drilled ☒ Other V-WIRE
7. Installed Protector Pipe w/Lock: Yes ☐ No ☒

WELL DEVELOPMENT INFORMATION:

1. How was Well Developed ? Bailing ☐ Pumping ☒
   Air Surging (Air or Nitrogen) ☒ Other SURGE BLOCK
2. Time Spent on Well Development ?
   _____ / 3 1/2 Hours
3. Approximate Water Volume Removed ? 2000 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 3.46 Ft. Date 7-23-01

Driller/Firm LAYNE
Drill Rig Type AP-1000
Date Installed 7-18-01
Drill Crew HORMAN
Well No. PC 99R3
Kerr-McGee Hydrologist ED KRISH

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON, NV	BORING NUMBER PC 115

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	0-5 SAND, v. silty, pale brn, 20% slt & vf-f sd, v. friable, calcareous, SR-R		SM							moist @ 2' PERCHED WTR @ 5-15'
5										
10	8-15 mod-com wht caliche nodules to 3/4"									damp/wet 12-18'
15	15-18 SILT, sdy, brn, w/20-30% vfg sd		ML							
18	18-26 GRAVEL, lt brn, pea gravel to 1" w/10-20% f-vc sd in matrix, volc gravel SR-R		GW							WTR @ 18'
24	24-28 SAND, silty, pale brn, 20% slt w/ vf-vc sd w/ some gravel, volc gravel and caliche nodules		SM							
28			GP							
35	28-42 GRAVEL, locally sdy and slty, pale brn, up to 6" cobbles, SR-SA, volc and ls. 28'-32' volc+ls to 2", 10-20% vf-vc sd		GM GP							

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
  - SPLIT-BARREL
  - AUGER
  - ROCK CORE
  - THIN-WALLED TUBE
  - CONTINUOUS SAMPLER
  - NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- ☐ _____
- ☐ _____

DATE DRILLED	PAGE
5-16-01	1 of

DRILLING METHOD: PERCUSSION

DRILLED BY: LAYNE

LOGGED BY: E. KRISH

EXISTING GRADE ELEVATION (FT. AMSL):

LOCATION OR GRID COORDINATES:

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION Henderson NV	BORING NUMBER PC 115

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
42	32-36 Silty gravelly sand, thin interbeds of silty fine sd w/ minor caliche nodules, 20-30% silt, cobbles to 4"		GP							
43			ML							
45			SM							
49	36-42' smaller pebbles, ave 1/2"-2", volc+ls, SA-SR									
	42-43 SILT, sdy, lt brn, w/ 20-30% vfg sd		CL							TOP MC @ 49
55	43-49 GRAVEL, sdy, pale brn w/ 25-35% vf-vc SR-SA sd and 10-15% silt. Gravel ave 3/4"-2" w/ minor 4"-6", volc+ls, SA-SR							TD 55'		
	48.5-49 Hard calichified gravel									
	49-55 CLAY, silty green, sp. root traces, tr-5% gyp crystals									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL | AUGER | ROCK CORE | THIN-WALLED TUBE | CONTINUOUS SAMPLER | NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

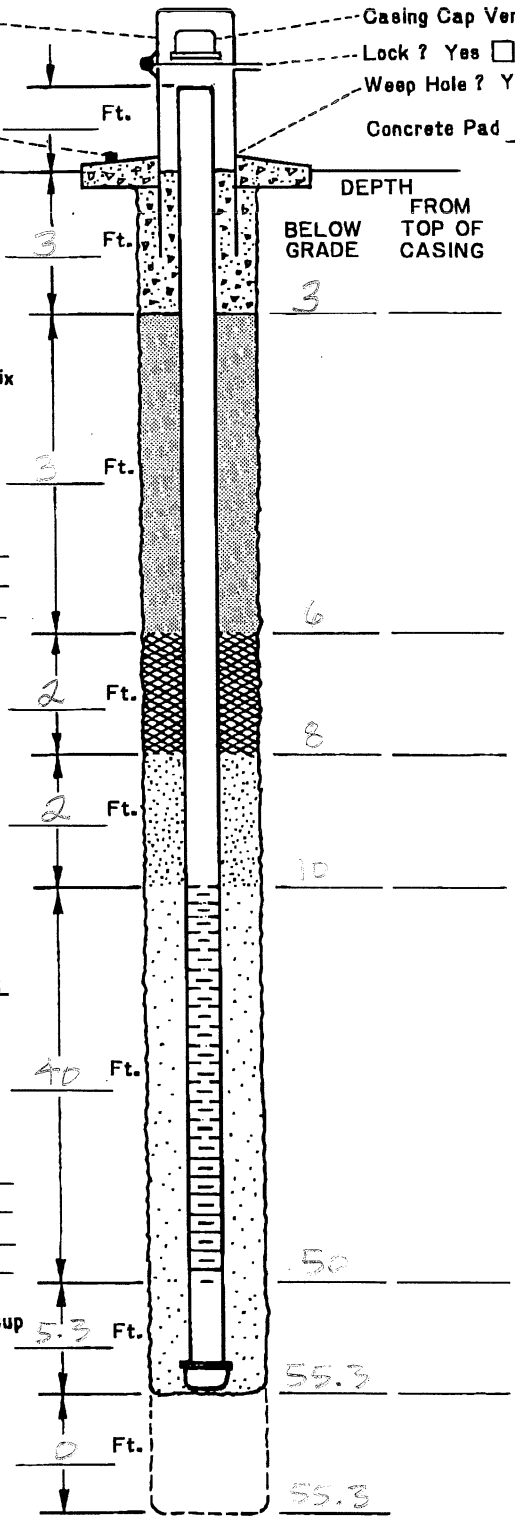
GRAPHIC LOG LEGEND

CLAY | DEBRIS FILL | SILT | HIGHLY ORGANIC (PEAT) | SAND | SANDY CLAY | GRAVEL | CLAYEY SAND | SILTY CLAY | _____ | CLAYEY SILT | _____

DATE DRILLED: 5-16-01
PAGE: 2 of 2
DRILLING METHOD: PERCUSSION
DRILLED BY: LAYNE
LOGGED BY: E. KRISH
EXISTING GRADE ELEVATION (FT. AMSL):
LOCATION OR GRID COORDINATES:

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM

FLUSH MOUNT IN VAULT



Protective Pipe
Yes ☐ No ☐
Steel ☐ PVC ☐
Surveying Pin ? Yes ☐ No ☐
Ft.

Casing Cap Vent ? Yes ☐ No ☐
Lock ? Yes ☐ No ☐
Weep Hole ? Yes ☐ No ☐
Concrete Pad _____ Ft. x _____ Ft. x _____ Inches

DEPTH FROM TOP OF CASING / BELOW GRADE

Concrete VAULT — 3 Ft. — 3

Cement/Bentonite Grout Mix
Yes ☒ No ☐
5.5 Gallons Water to 94Lb. Bag Cement & 3–5 Lb. Bentonite Powder
3 Ft. — 6
Other: _____

Bentonite Seal
Pellets ☒ Slurry ☐
2 Ft. — 8

Filter Pack Above Screen
2 Ft. — 10

FILTER PACK MATERIAL
Silica Sand ☒
Washed Sand ☐
Pea Gravel ☐
40 Ft. — 50
Other: _____
Sand Size 8-12

Dense Phase Sampling Cup
Bottom Plug Yes ☒ No ☐
5.3 Ft. — 55.3

Overdrilled Material Backfill
Grout ☐ Sand ☒
Caved Material ☐
Other: _____
0 Ft. — 55.3

DRILLING INFORMATION:

1. Borehole Diameter= 11.5 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 _____ 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 6 Inches, Screen 6 Inches.
5. Slot Size of Screen: 0.040
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 ?
   _____ / 60 Minutes/Hours
3. Approximate Water Volume Removed ? _____ 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 18 Ft. Date 5-16-01
Before Development _____ Ft. Date _____
After Development _____ Ft. Date _____

Driller/Firm MARTIN / Layne — Drill Rig Type AP-1000 — Date Installed 5-23-01
Drill Crew Jose / Don — Well No. PC 115 — Kerr–McGee Hydrologist ED KRISH

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON, NV	BORING NUMBER PC 115R

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
	0-5 SAND, brn, m-VC w/ 10-20% silt		SM							0-4 damp
5	5-9 Gravel, sdy, f-VC sand 10-30%; gravel mostly 1/4"-1"		GP							4-9 wet
9	9-27 SAND, silty w/ minor interbedded sdy SILT, brn, vf-m. Varying silt 20-50%		SM							9-25 damp/ moist
15										
20	22-24 Can. Sd size caliche nodules									
										@25' wet
27	27-44 Gravel, sdy w/ minor local silty Sd layers Series of fining-upward channel deposits		GP							
35	Gravel, volc, SA-SR, 1/4"-1" w/ minor 4"-8" Sand 20-60% vf-VC silt 10-30% locally									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	PAGE
7-18-01	1 of 2

DRILLING METHOD: PERCUSSION

DRILLED BY: LAYNE

LOGGED BY: ED KRISH

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON	BORING NUMBER PC 115R

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
44	44-50 GRAVEL, sdy, lt brn, inc in ls pebbles and caliche nodules no lg cobbles as above (max 2")		GW							
50	50-58 CLAY, silty grnish + blue grnish		CL							MC @ 50 moist
58	TD 58									

EXPLANATION

- Water Table (24 Hour)
- Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED: 7-18-01 PAGE: 2 of 2

DRILLING METHOD

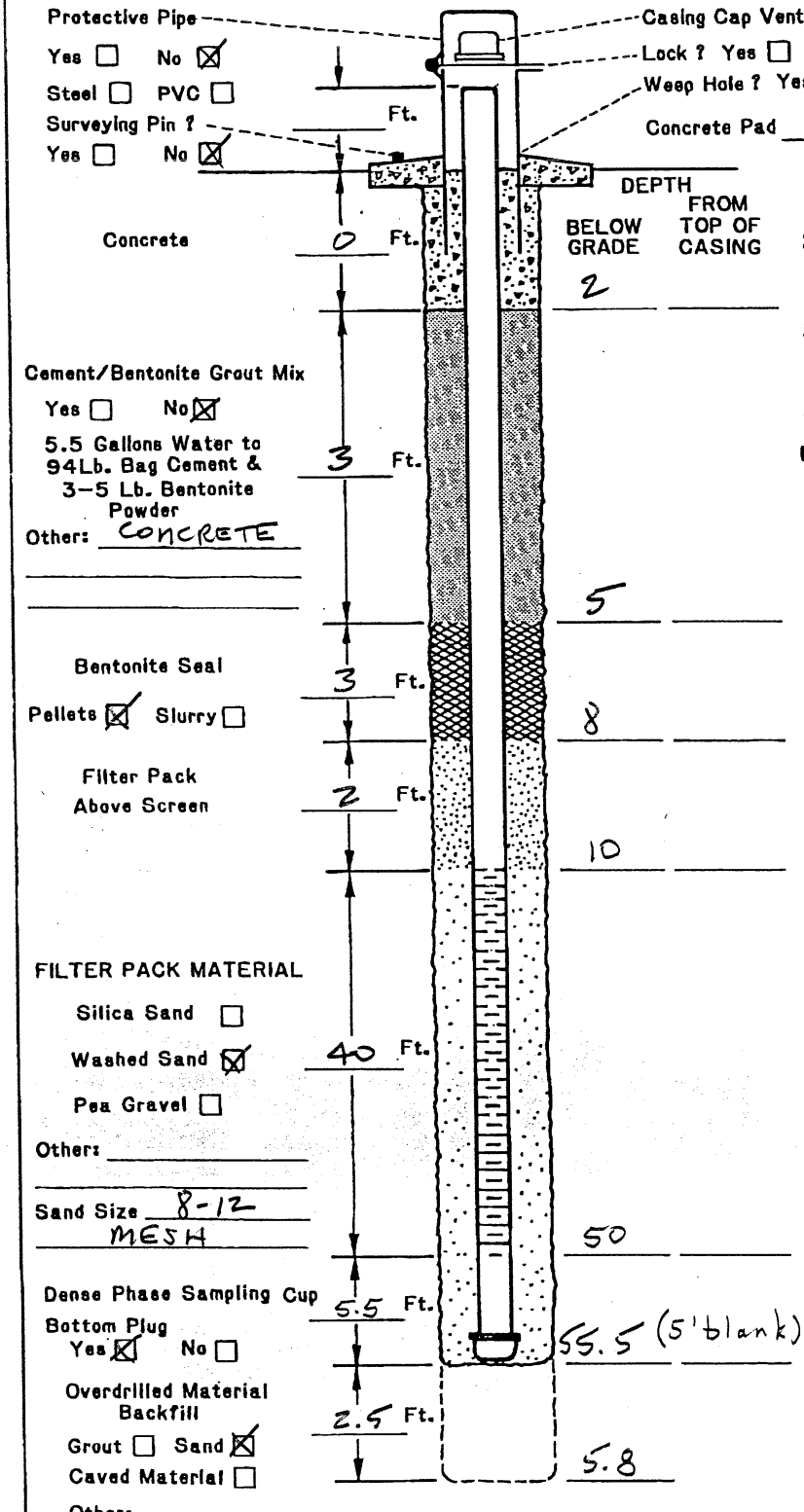
DRILLED BY

LOGGED BY

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM



DRILLING INFORMATION:

1. Borehole Diameter= 13 1/4 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 _____ 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 8 Inches, Screen 8 Inches.
5. Slot Size of Screen: 0.040
6. Type of Screen Perforation: Factory Slotted ☒
   Hacksaw ☐ Drilled ☐ Other V-WIRE
7. Installed Protector Pipe w/Lock: Yes ☐ No ☐

WELL DEVELOPMENT INFORMATION:

1. How was Well Developed ? Bailing ☐ Pumping ☒
   Air Surging (Air or Nitrogen) ☒ Other SURGE BLOCK
2. Time Spent on Well Development ?
   _____ / 3 1/2 ~~Minutes~~/Hours
3. Approximate Water Volume Removed ? 2000 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 5.46 Ft. Date 7-24-01

Driller/Firm LAYNE Drill Rig Type AP-1000 Date Installed 7-19-01
Drill Crew P. HORMAN Well No. PC 115R Kerr-McGee Hydrologist ED KRISH

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON, NV	BORING NUMBER PC 116

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6'	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
3	0-3 GRAVEL, sdy & silty, brn, 70% vol c, SA-SR grav, 1 pebble to 2" w/ 20% vf-vc SA-SR sd + 10% silt		GM							moist @ 1'
9	3-9 SAND, grav. & silty, brn, 70% vf-vc, SA-SR sd w/ 10% vol c grav. and 20% silt.		SP/SM							Perched WTR 2-22'
18	9-18 SAND, silty, brn vf-fg w/ minor m-cg w/ 20% silt in matrix and thin SILT interbeds. Contains dissem. ½"-1" caliche nodules		SM							damp/wet 9-22'
20	18-20 SILT, sdy, gry grn + wht. Com caliche nodules (sd size) and stringers. w/ 20% vf-fg sd in matrix		ML							
26	20-26 SAND, silty, brn 80% vf-m w/ minor c-vc + minor vol c granules. 20% silt		SM							WTR @ 20'
35	26-47 GRAVEL, sdy & silty, pale brn. 70-80% vol c + lg granules to cobbles w/ 20-30% vf-vc SA-SR sd + 10-20% silt 26-37 granules + pea grav to 1" 37-47 cobbles up to 6"		GM							

EXPLANATION

- Water Table (24 Hour)
- Water Table (Time of Boring)
- PID — Photoionization Detection (ppm)
- NO. — Identifies Sample by Number
- TYPE — Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH — Depth Top and Bottom of Sample
- REC. — Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	PAGE
5-17-01	1 of 2

DRILLING METHOD: PERCUSSION

DRILLED BY: LAYNE

LOGGED BY: ED KRISH

EXISTING GRADE ELEVATION (FT. AMSL):

LOCATION OR GRID COORDINATES:

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON NV	BORING NUMBER PC116

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
45			GM							
47	47-55 CLAY and silty Clay, Root traces & sm. gyp xtals		CL							MC @ 47'
50	47-51 green 51-55 olive green									
55	TD @ 55'									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL · AUGER · ROCK CORE · THIN-WALLED TUBE · CONTINUOUS SAMPLER · NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

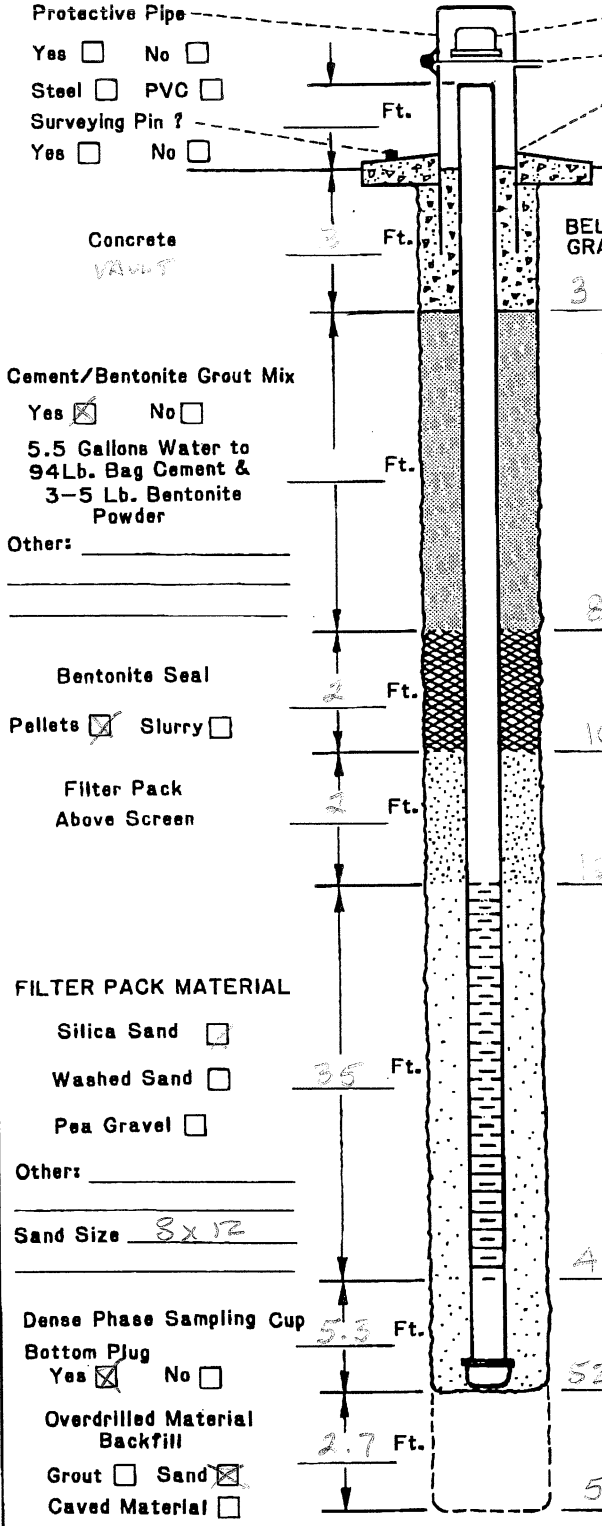
GRAPHIC LOG LEGEND

CLAY · SILT · SAND · GRAVEL · SILTY CLAY · CLAYEY SILT · DEBRIS FILL · HIGHLY ORGANIC (PEAT) · SANDY CLAY · CLAYEY SAND

DATE DRILLED	PAGE
	of
DRILLING METHOD	
DRILLED BY	
LOGGED BY	
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM

FLUSH MOUNT



DRILLING INFORMATION:

1. Borehole Diameter= 11.5 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 ____ 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 6 Inches, Screen 6 Inches.
5. Slot Size of Screen: 0.040
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 ?
   ____ / 60 Minutes/Hours
3. Approximate Water Volume Removed ? ____ 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 20 Ft. Date 5-17-01
Before Development 0.90 Ft. Date 5-18-01
After Development ____ Ft. Date ____

Driller/Firm MARTIN / LAYNE
Drill Rig Type AP 1000
Date Installed 5-25-01
Drill Crew JOSE / DON
Well No. PC 116
Kerr–McGee Hydrologist Ed Krish

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON	BORING NUMBER PC 116 R

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	0-10 GRAVEL, sdy and SAND, gravelly – interbedded. Minor thin silty layers. Brn. 50-80% gran → 2" peb. 10-30% silt in sdy matrix 20-50% vf-vc, SA sd.		GW/SW							damp @ 1'
5										
10										wet 2 - 18'
	10'-18' SAND, silty brn, vf-c g, SA 10-30% silt in matrix locally com. sd-size caliche nodules		SM							
15										
18	18-20 SILT, sdy, gry grn, Com caliche nods, 20-30% vf-f sd		ML							damp
20	20-27 SAND, silty, lt. brn. vf-m g w/ minor c-vc. 20-30% silt in matrix		SM							WTR @ 20'
27	27-49 GRAVEL, sdy w/ minor gravelly sand and silty sand. pale brn. (Series of fining-up seq.) 70% volc+ls. granules → cobbles. 20-30% f-vc sd and thin layers w/ 20-30% silt in sdy matrix		GP/GM							
30										
35	27-38 pea gravel									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	PAGE
7-25-01	1 of 2

DRILLING METHOD: PERCUSSION

DRILLED BY: LAYNE

LOGGED BY: ED KRISH

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

SOIL BORING LOG KM-5655-B

KERR-McGEE CORPORATION Hydrology Dept. - S&EA Division	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON, NV	BORING NUMBER PC 116R

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER 6"	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
45	38'-49' com. cobbles to 6"	FILL	GP/GM							
49	49-58 CLAY & silty clay, w/ root traces & sm. gyp x tals. greenish and blue green		CL							MC @ 49' damp
58	TD 58'									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	PAGE
7-25-01	2 of 2

DRILLING METHOD: PERCUSSION

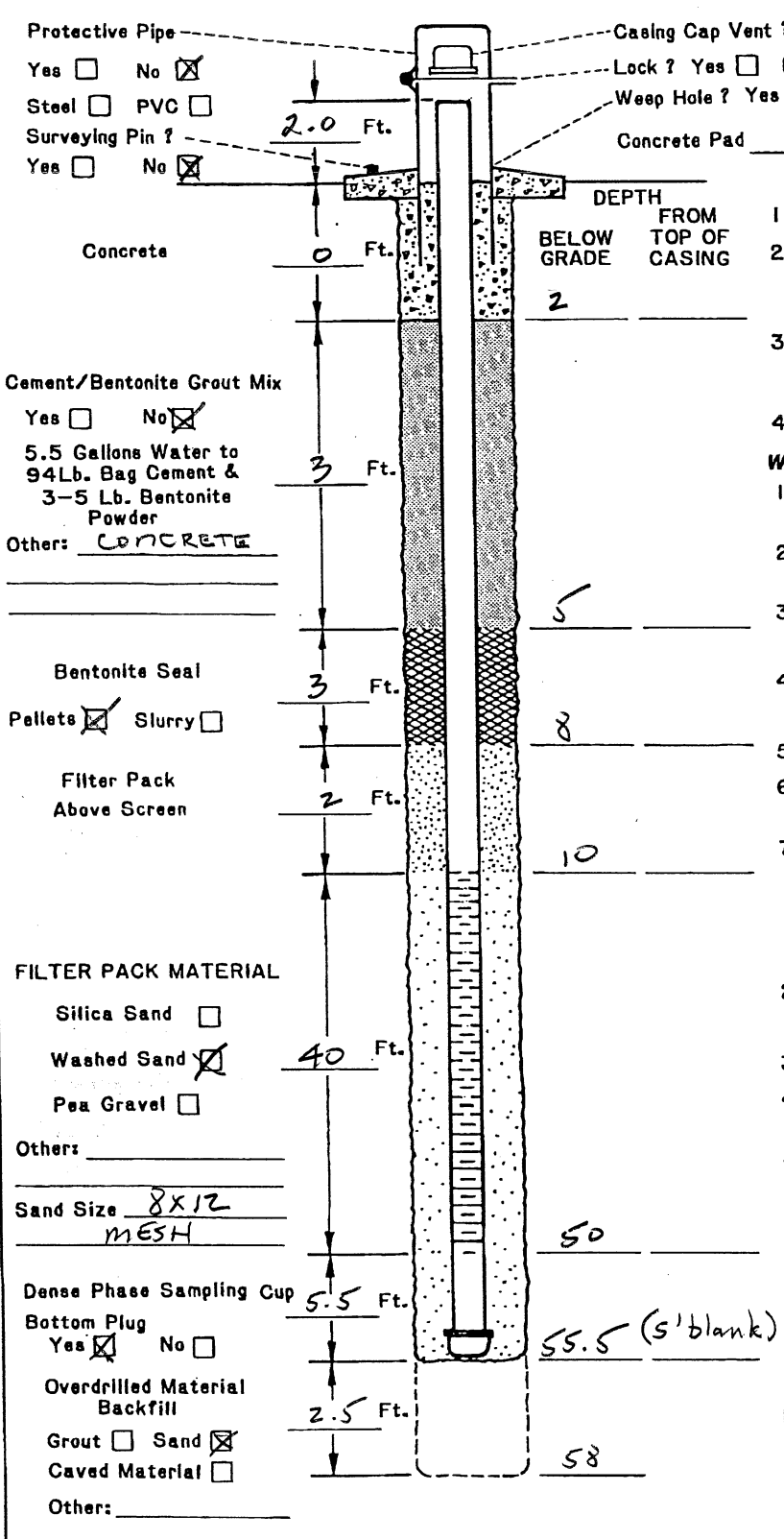
DRILLED BY: LAYNE

LOGGED BY: Ed KRISH

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM



DRILLING INFORMATION:

1. Borehole Diameter= 13¼ 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 ____ 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 8 Inches, Screen 8 Inches.
5. Slot Size of Screen: 0.040
6. Type of Screen Perforation: Factory Slotted ☒
   Hacksaw ☐ Drilled ☐ Other V-WIRE
7. Installed Protector Pipe w/Lock: Yes ☐ No ☐

WELL DEVELOPMENT INFORMATION:

1. How was Well Developed ? Bailing ☐ Pumping ☒
   Air Surging (Air or Nitrogen) ☒ Other SURGE BLOCK
2. Time Spent on Well Development ?
   ____ / 3 1/2 ~~Minutes~~/Hours
3. Approximate Water Volume Removed ? 2000 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 4.20 Ft. Date 7-27-01

Driller/Firm LAYNE Drill Rig Type AP 1000 Date Installed 7-26-01
Drill Crew P. HORMAN Well No. PC116R Kerr-McGee Hydrologist ED KRISH

SOIL BORING LOG

KERR-McGEE CORPORATION Hydrology Dept.	KM SUBSIDIARY KMC LLC	LOCATION HENDERSON	BORING NUMBER PC 117

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER FOOT	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
4	0-4 Gravel, sdy + silty, pebbles to 2" 30% vf-vc sd, 20% silt		GM							LOCATED 100' E of PC-116R
10	4-10 SAND, gravelly w/ 20% silt, 30% gravel up to 2"		SP/SM						-	WATER @ 2'
16	10-16 SAND, silty vf-m w/ minor c-vc, 20% silt		SM							10-16' damp
20	16-20 SILT, sdy. 20% vf-fg sd. Com sd size calliche nodules		ML							
25	20-25' SAND, silty 20% silt. vf-m w/ minor c-vc.		SM							wet @ 20'
35	25-51 Gravel, locally sdy/slty, mostly clean w/ water, 0-20% silt, 0-40% vf-vc sd Abn vole. granules w/ local cobbles to 6"		GM							
40										

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED: 2-15-03 PAGE: 1 of 2

DRILLING METHOD: Hammer

DRILLED BY: LAYNE

LOGGED BY: ED KRISH

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

SOIL BORING LOG

KERR-McGEE CORPORATION Hydrology Dept.	KM SUBSIDIARY KMCLLC	LOCATION HENDERSON	BORING NUMBER PC 119

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER FOOT	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
45			GM							
51	51 – 57.5 CLAY, silt grn & blue gyp. gypsum +/-		CL							PC @ 5
	TD 57.5 FEET									

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	PAGE
2-15-03	2 of 2

DRILLING METHOD: HAMMER

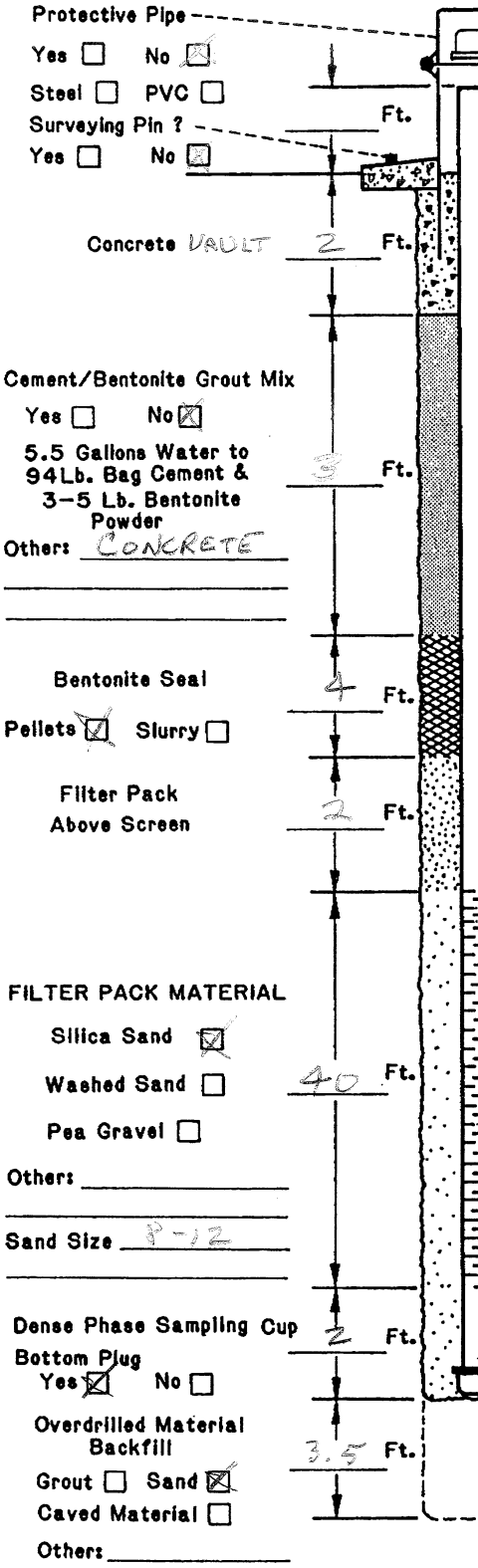
DRILLED BY: LAYNE

LOGGED BY: ED KRUSH

EXISTING GRADE ELEVATION (FT. AMSL)

LOCATION OR GRID COORDINATES

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM



DRILLING INFORMATION:

1. Borehole Diameter= 13 1/4 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 _____ 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 8 Inches, Screen 8 Inches.
5. Slot Size of Screen: 0.040
6. Type of Screen Perforation: Factory Slotted ☐
   Hacksaw ☐ Drilled ☐ Other VEE-WIRE
7. Installed Protector Pipe w/Lock: Yes ☐ No ☐

WELL DEVELOPMENT INFORMATION:

1. How was Well Developed ? Bailing ☐ Pumping ☒
   Air Surging (Air or Nitrogen) ☐ Other SURGE BLOCK
2. Time Spent on Well Development ?
   4 / _____ ~~Minutes~~/Hours
3. Approximate Water Volume Removed ? 1000 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 2.0 Ft. Date 2-15-03

Before Development _____ Ft. Date _____

After Development 4.50 Ft. Date 2-20-03

Driller/Firm PERRY / LAYNE Drill Rig Type AP 1000 Date Installed 2-16-03

Drill Crew MARCO / BD Well No. PC 117 Kerr-McGee Hydrologist ED KRISH

SOIL BORING LOG KM—5655-A

KERR-McGEE CORPORATION Hydrology Dept. Engineering Services	KM SUBSIDIARY KMCLLC	LOCATION HENDERSON NV	BORING NUMBER PC 118

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER FOOT	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	0-15 SAND, silty w/ minor pea gravel zones, vf-veg sd		SM							water @ 21'
5										DRILLED 12 FT NORTH OF PC 115
10										
15	15-18 SILT, sdy, 20-30% vf-mg sd		ML							
18	18-26 GRAVEL, sdy (20-30%) w/ local silty zones		GM							
26	26-28 SAND, silty, vf-mg w/ minor cg, 20-30% silt		SM							
28	28-49.5 Gravel, clean-sl. silty w/ 10-20% vf-vc g sd + granules		GM							
35										
40										

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL; AUGER; ROCK CORE; THIN-WALLED TUBE; CONTINUOUS SAMPLER; NO RECOVERY

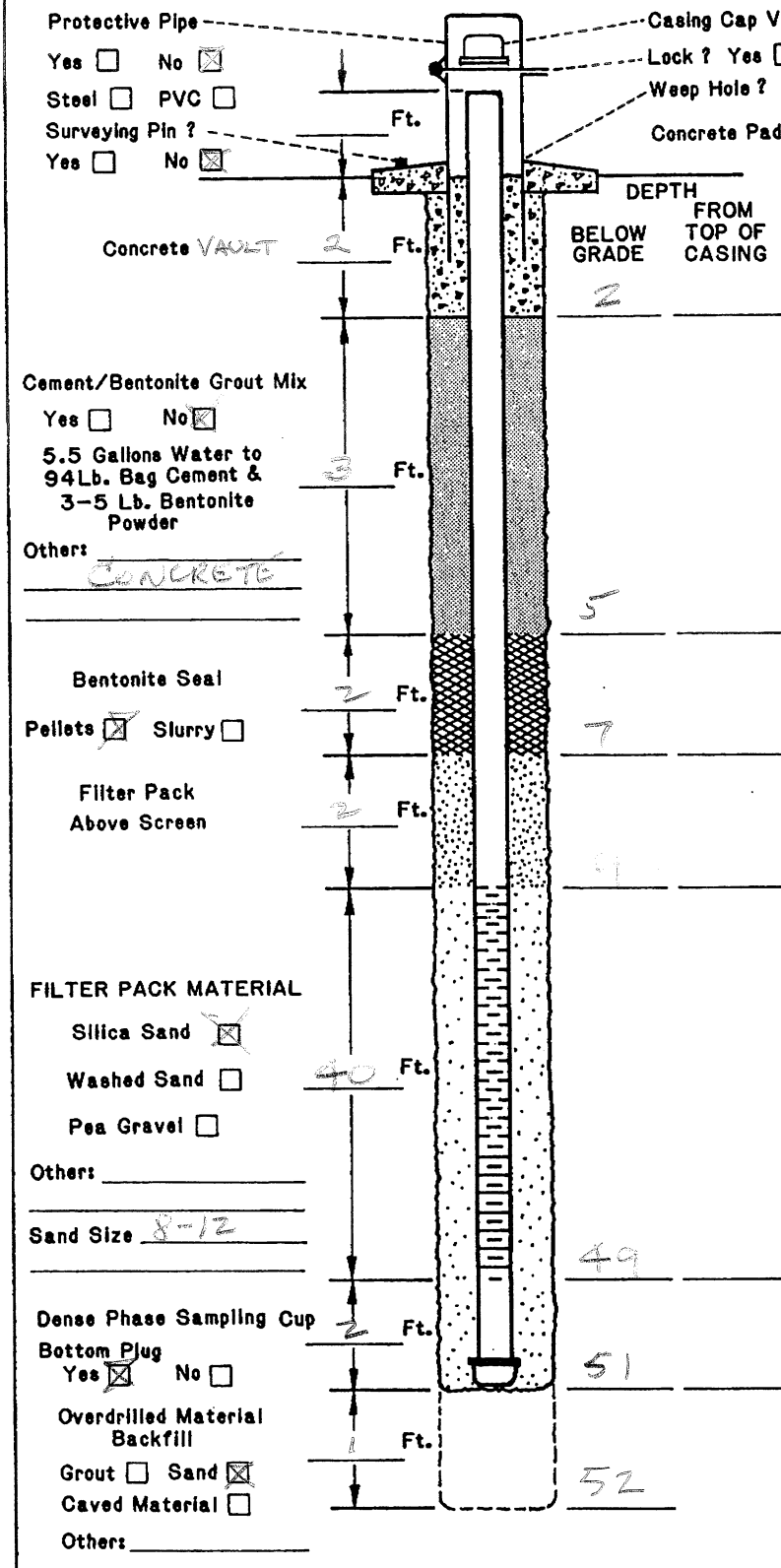
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY; SILT; SAND; GRAVEL; SILTY CLAY; CLAYEY SILT; DEBRIS FILL; HIGHLY ORGANIC (PEAT); SANDY CLAY; CLAYEY SAND; _____; _____

DATE DRILLED	PAGE
2-16-03	1 of 2
DRILLING METHOD: HAMMER	
DRILLED BY: LAYNE	
LOGGED BY: ED KRISH	
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM



DRILLING INFORMATION:

1. Borehole Diameter= 13-¼ 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 _____ 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 VEE WIRE
4. Diameter of Casing and Well Screen:
   Casing 8 Inches, Screen 8 Inches.
5. Slot Size of Screen: 0.040
6. Type of Screen Perforations: 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 SURGE BLOCK
2. Time Spent on Well Development ?
   4 / _____ Minutes/Hours
3. Approximate Water Volume Removed ? 1000 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 2.0 Ft. Date 2-16-03
Before Development _____ Ft. Date _____
After Development 4.64 Ft. Date 2-20-03

Driller/Firm PERRY / LAYNE Drill Rig Type AP 1000 Date Installed 2-17-03
Drill Crew MARCO / BO Well No. PC 118 Kerr-McGee Hydrologist ED KRISH

SOIL BORING LOG

KERR-McGEE CORPORATION Hydrology Dept.	KM SUBSIDIARY KMCLLC	LOCATION HENDERSON, NV	BORING NUMBER PC 119

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER FOOT	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	0-15 silty SAND, 20% gravel, vf-fg w/m		SM							water @ 3'
15	15-20 GRAVEL, minor sd & silt, pegravel up to 2"		GM							
20	20-29 SAND, silty, vf-vc w/20% volc granules - 20% silt		SM							
29	29-47 Gravels broadly silty/silty, clean w/ cobbles to 6"		GM							
40										

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL; AUGER; ROCK CORE; THIN-WALLED TUBE; CONTINUOUS SAMPLER; NO RECOVERY

DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY; SILT; SAND; GRAVEL; SILTY CLAY; CLAYEY SILT; DEBRIS FILL; HIGHLY ORGANIC (PEAT); SANDY CLAY; CLAYEY SAND; _____; _____

DATE DRILLED 2-17-03 PAGE 1 of 2
DRILLING METHOD HAMMER
DRILLED BY LAYNE
LOGGED BY ED KRISH
EXISTING GRADE ELEVATION (FT. AMSL)
LOCATION OR GRID COORDINATES

SOIL BORING LOG

KERR-McGEE CORPORATION Hydrology Dept.	KM SUBSIDIARY Kmcllc	LOCATION HENDERSON NV	BORING NUMBER PC-119

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER FOOT	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
	46-47 compact brn clay as gravel matrix								-	
47	47-49 CLAY, silty 9m		CL							

EXPLANATION

- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method

SPLIT-BARREL · AUGER · ROCK CORE · THIN-WALLED TUBE · CONTINUOUS SAMPLER · NO RECOVERY

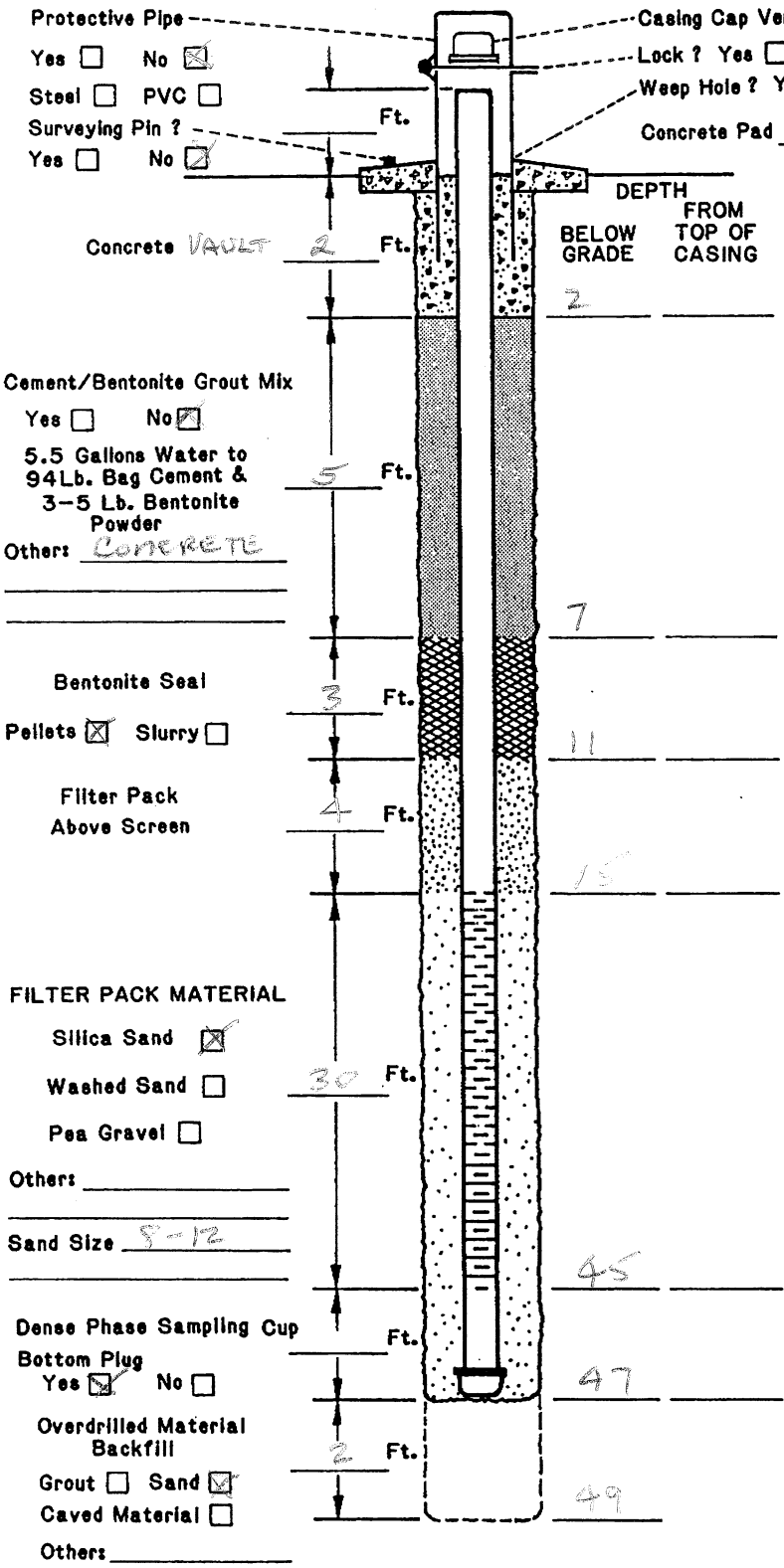
DEPTH Depth Top and Bottom of Sample
REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

CLAY · SILT · SAND · GRAVEL · SILTY CLAY · CLAYEY SILT · DEBRIS FILL · HIGHLY ORGANIC (PEAT) · SANDY CLAY · CLAYEY SAND

DATE DRILLED	PAGE
2-17-03	2 of 2
DRILLING METHOD: HAMMER	
DRILLED BY: LAYNE	
LOGGED BY: E KRISH	
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM



DRILLING INFORMATION:

1. Borehole Diameter= 13.25 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 ____ 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 VEE-WIRE
4. Diameter of Casing and Well Screen:
   Casing 8 Inches, Screen 8 Inches.
5. Slot Size of Screen: 0.040
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 SURGE BLOCK
2. Time Spent on Well Development ?
   4 / ____ ~~Minutes~~/Hours
3. Approximate Water Volume Removed ? 1000 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 ____

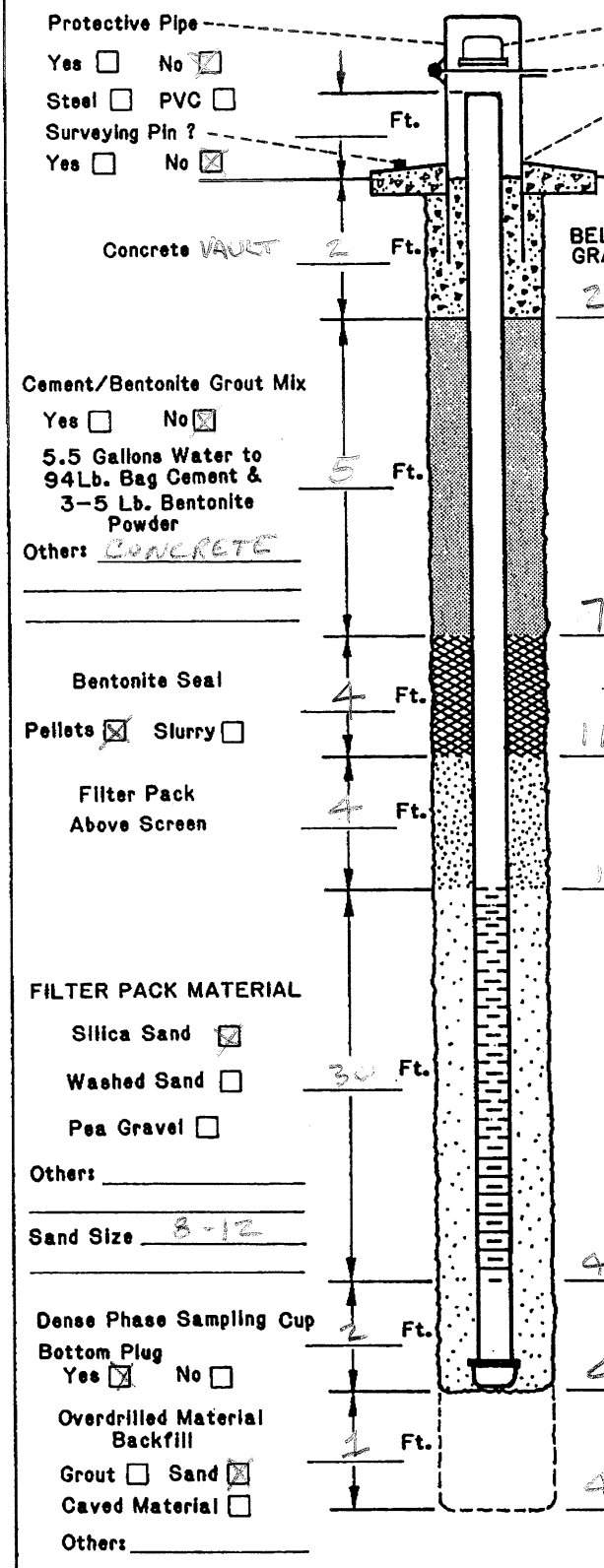
WATER LEVEL INFORMATION:

Water Level Summary (From Top of Casing)

During Drilling 3 Ft. Date 2-18-03
Before Development 3.45 Ft. Date 2-20-03
After Development 3.40 Ft. Date 2-21-03

Driller/Firm PERRY / LAYNE Drill Rig Type AP 1000 Date Installed 2-18-03
Drill Crew BO / MARCO Well No. PC 119 Kerr-McGee Hydrologist E KRISH

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM



DRILLING INFORMATION:

1. Borehole Diameter= 13.25 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 _____ 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 VEE-WIRE
4. Diameter of Casing and Well Screen:
   Casing 8 Inches, Screen 8 Inches.
5. Slot Size of Screen: 0.040
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 SURGE BLOCK
2. Time Spent on Well Development ?
   4 / _____ ~~Minutes~~/Hours
3. Approximate Water Volume Removed ? 1000 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 3 Ft. Date 2-19-03
Before Development 3.40 Ft. Date 2-21-03
After Development _____ Ft. Date _____

Driller/Firm PERRY / LAYNE
Drill Rig Type AP 1000
Date Installed 2-19-03
Drill Crew BW / MARCO
Well No. PC-120
Kerr-McGee Hydrologist ED KRISH

SOIL BORING LOG

KERR-McGEE CORPORATION Hydrology Dept.	KM SUBSIDIARY KMCLLC	LOCATION HENDERSON, NV	BORING NUMBER PC 121

DEPTH IN FEET	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	UNIFIED SOIL FIELD CLASS.	BLOWS PER FOOT	PID (ppm)	SOIL SAMPLE NO.	SOIL SAMPLE TYPE	SOIL SAMPLE DEPTH	SOIL SAMPLE REC.	REMARKS OR FIELD OBSERVATIONS
0	0-9 SAND, sl. silty w/ 10-20% granules vf-vcg.		SW							water @ 3'
9	9-25 SAND, silty w/ minor fine gravel, 20-25% silt, vf-cg		SM/SW							
25	25-40.5TD Gravel, clean-cl silty, w/10-20% vf-vc sand		GW							
	38.5-40.5(TD) V. HARD caliche-filled gravel, fractured									REFUSAL @ 40.5'

EXPLANATION

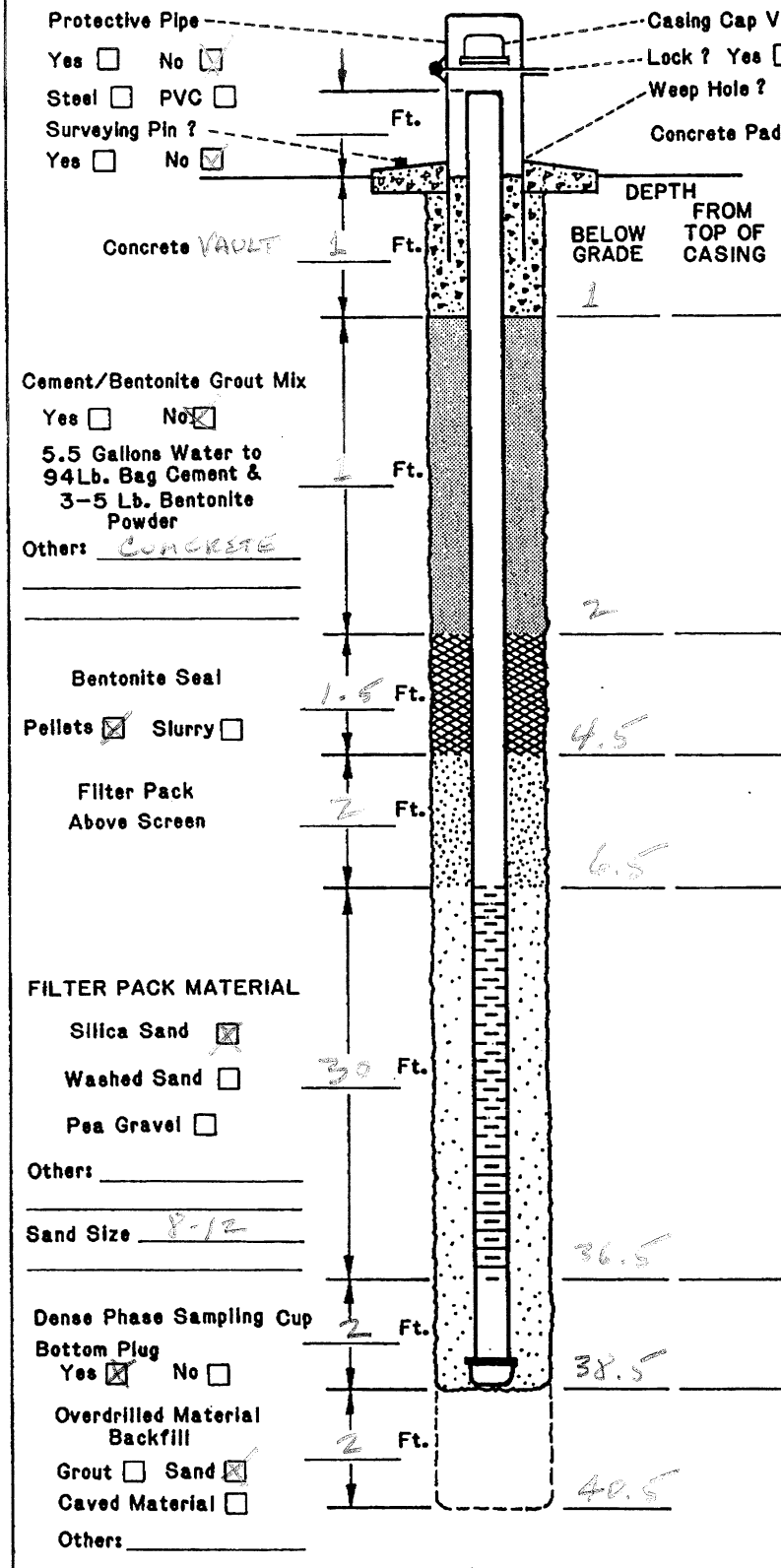
- ▼ Water Table (24 Hour)
- ▽ Water Table (Time of Boring)
- PID Photoionization Detection (ppm)
- NO. Identifies Sample by Number
- TYPE Sample Collection Method
- SPLIT-BARREL
- AUGER
- ROCK CORE
- THIN-WALLED TUBE
- CONTINUOUS SAMPLER
- NO RECOVERY
- DEPTH Depth Top and Bottom of Sample
- REC. Actual Length of Recovered Sample in Feet

GRAPHIC LOG LEGEND

- CLAY
- SILT
- SAND
- GRAVEL
- SILTY CLAY
- CLAYEY SILT
- DEBRIS FILL
- HIGHLY ORGANIC (PEAT)
- SANDY CLAY
- CLAYEY SAND
- _____
- _____

DATE DRILLED	2-19-03
PAGE	1 of 1
DRILLING METHOD	HAMMER
DRILLED BY	LAYNE
LOGGED BY	ED KRISH
EXISTING GRADE ELEVATION (FT. AMSL)	
LOCATION OR GRID COORDINATES	

KERR-McGEE CORPORATION
HYDROLOGY DEPARTMENT
MONITORING WELL INSTALLATION DIAGRAM



DRILLING INFORMATION:

1. Borehole Diameter= 13.25 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 _____ 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 VEE-WIRE
4. Diameter of Casing and Well Screen:
   Casing 2 Inches, Screen 2 Inches.
5. Slot Size of Screen: 0.040
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 SURGE BLOCK
2. Time Spent on Well Development ?
   4 / _____ ~~Minutes~~/Hours
3. Approximate Water Volume Removed ? 200 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 3 Ft. Date 2-19-03
Before Development 2.95 Ft. Date 2-21-03
After Development _____ Ft. Date _____

Driller/Firm PERRY / LAYNE Drill Rig Type AP1000 Date Installed 2-20-03
Drill Crew BO / MARCO Well No. PC MW-1 Kerr-McGee Hydrologist ED KRISH