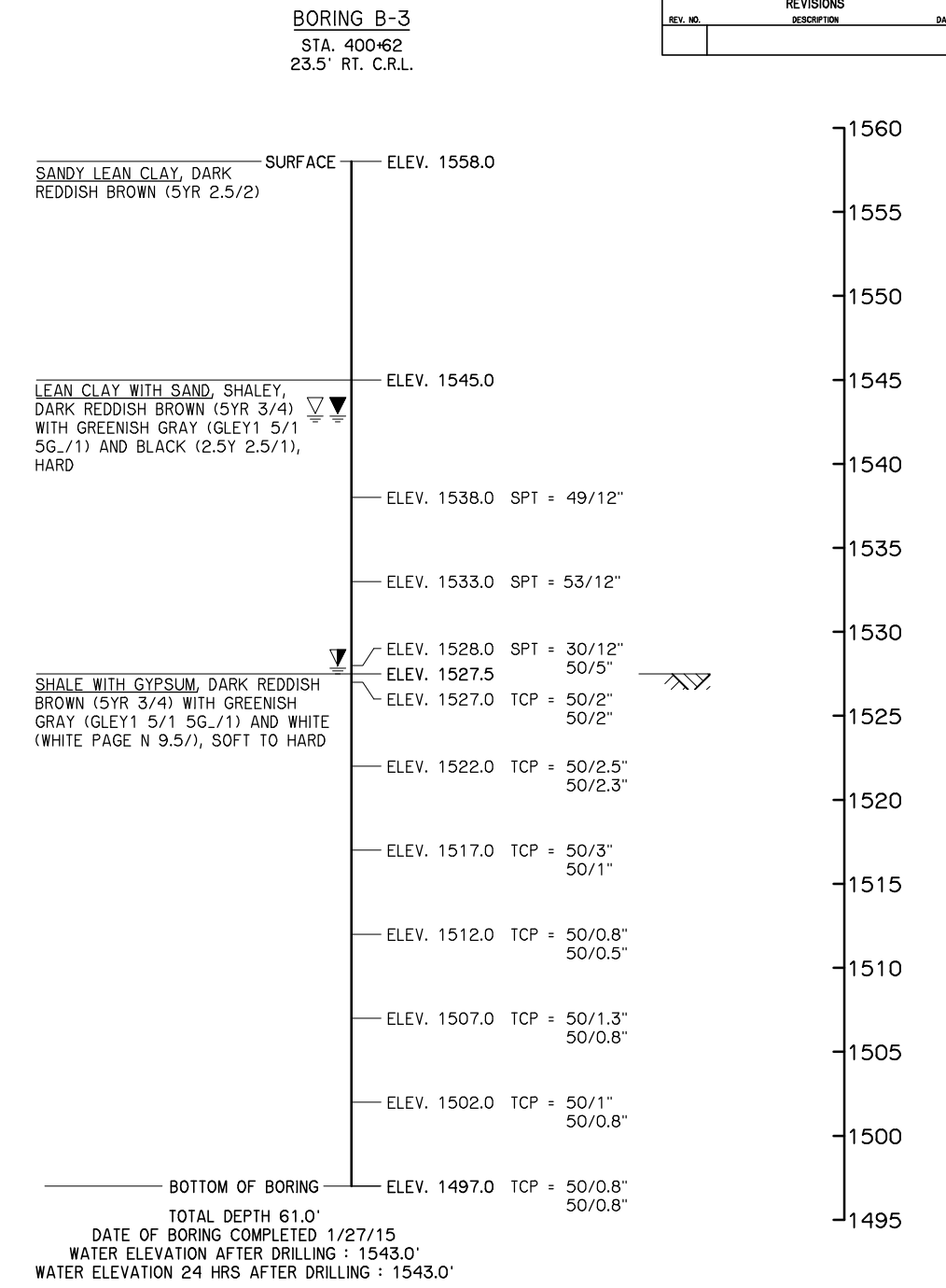
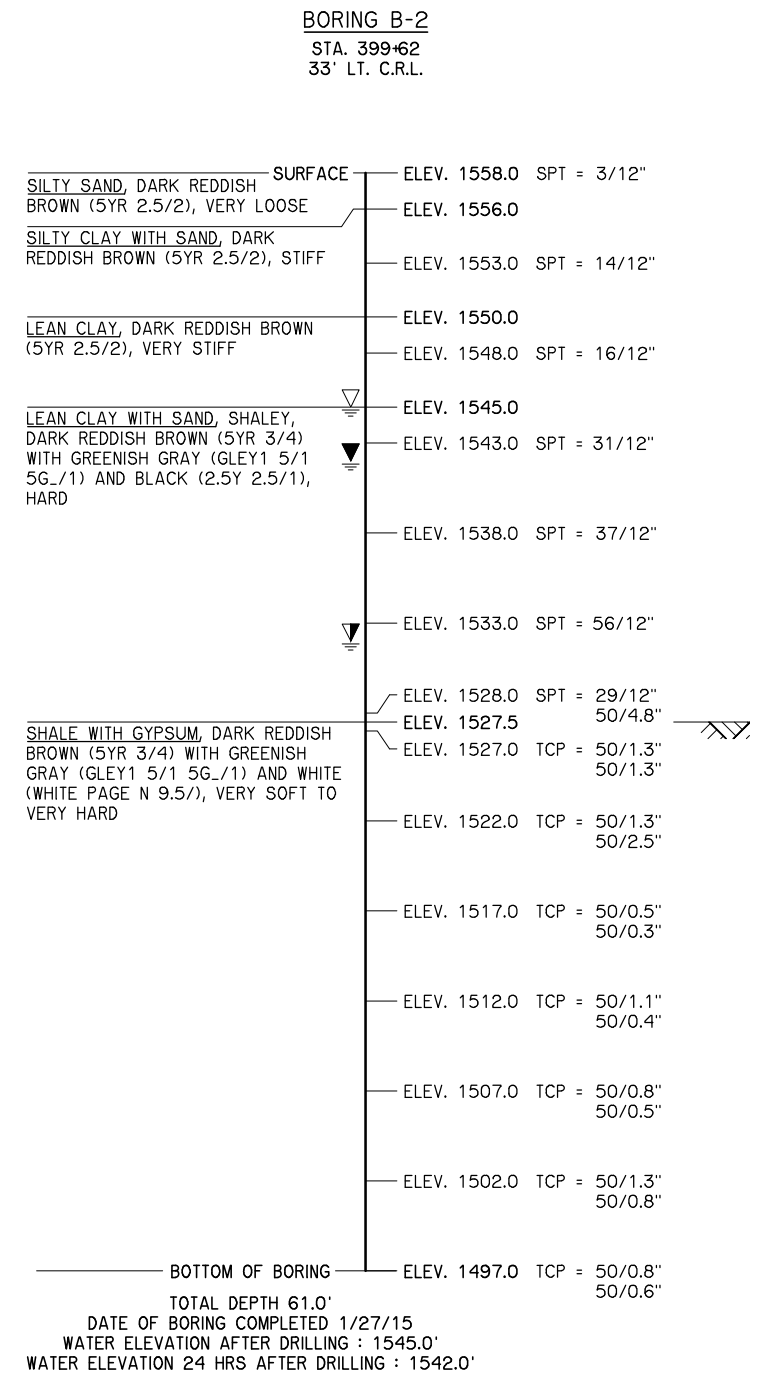
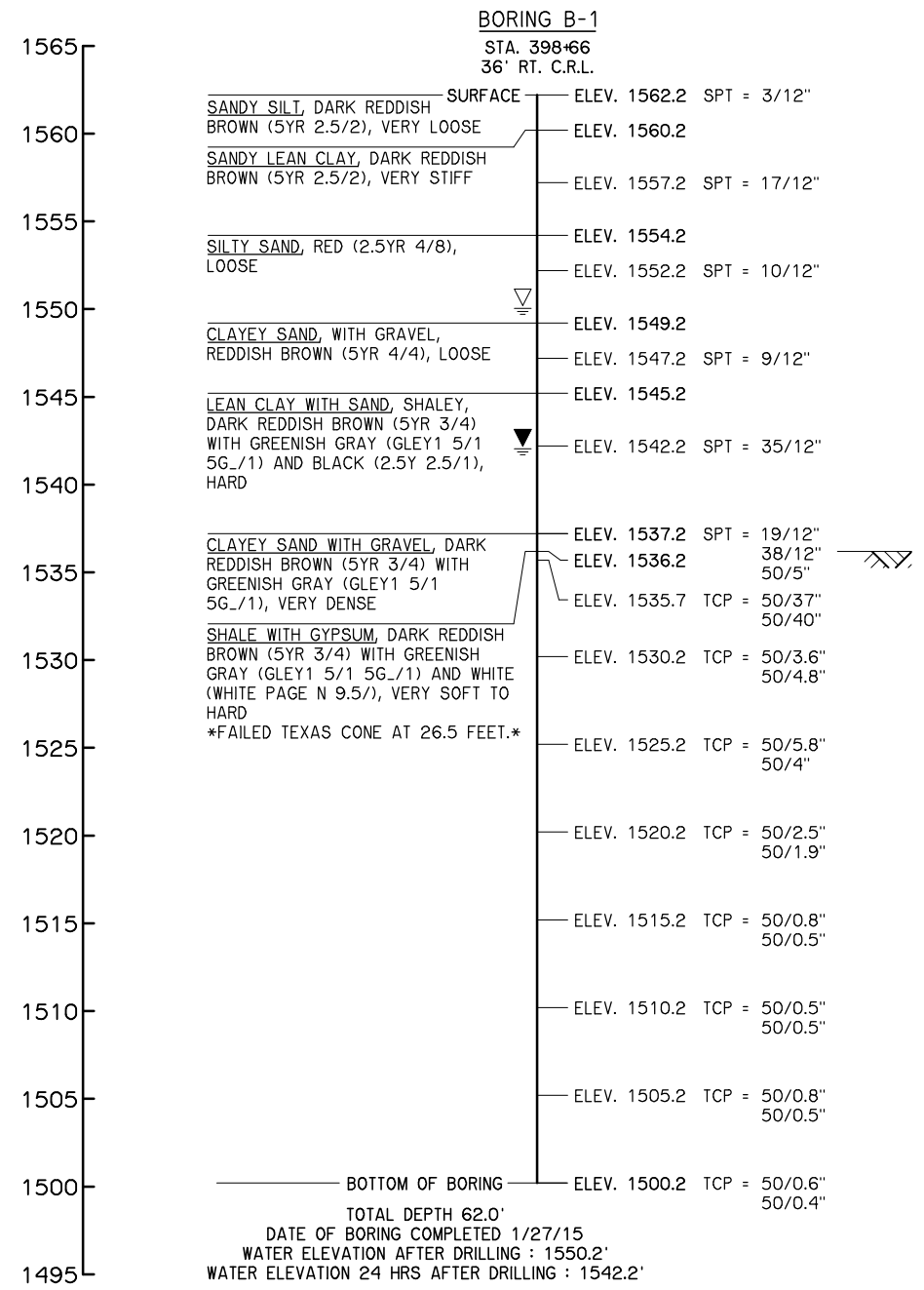


REVISIONS		
REV. NO.	DESCRIPTION	DATE



GEOLOGICAL STATEMENT

DIVISION FIVE OF THE "ENGINEERING CLASSIFICATION OF GEOLOGICAL MATERIALS", PUBLISHED BY THE OKLAHOMA DEPARTMENT OF TRANSPORTATION (ODOT) INDICATES THE PROJECT SITE IS LOCATED OVER ALLUVIUM (QAS) UNDERLAIN BY THE FLOWERPOT UNIT (PF). ALLUVIUM DEPOSITS OF SAND, SILT, CLAY, GRAVEL, AND/OR COMBINATIONS OF MATERIALS. ALLUVIUM IS FOUND ALONG THE FLOOD PLANS (BOTTOM LAND) OF STREAMS AND IS NORMALLY PRESENT AT PLACES ALONG ALL STREAMS. THE FLOWERPOT UNIT CONSISTS DOMINANTLY OF REDDISH-BROWN, BLOCKY SHALE WITH MINOR AMOUNTS OF THIN, INTERBEDDED, GREENISH-GRAY SHALE, SILTSTONE, GYPSUM, AND DOLOMITE. THE SHALES CONTAIN SALT IN MUCH OF BECKHAM AND HARMON COUNTIES. IN BLAINE COUNTY, THE UNIT CONTAINS A ZONE OF SOFT SANDSTONES AND MUDSTONE CONGLOMERATES WHICH LIE SOME 180 FEET ABOVE THE BASE OF THE UNIT. THIS ZONE IS MAPPED AS THE CHICKASHA SUBUNIT. ON THE SOUTHERN FLANKS OF THE ANADARKO BASIN (JACKSON COUNTY) THE LOWER 28-200 FEET OF THE UNIT CONSISTS OF A SANDSTONE AND SHALE ZONE WHICH IS MAPPED SEPARATELY AS THE DUNCAN SUBUNIT WHICH IS DISCUSSED SEPARATELY IN THIS PUBLICATION. THE TOTAL THICKNESS OF THE UNIT IS ABOUT 450 FEET (INCLUDES CHICKASHA SUBUNIT) IN BLAINE COUNTY. SOUTHWARD, IN DIVISION 5, IT VARIES FROM 90 TO 250 FEET IN THICKNESS (DOES NOT INCLUDE DUNCAN SUBUNIT).

IN DIVISION 5, THE FLOWERPOT UNIT OUTCROPS IN A NORTHWEST-SOUTHEAST BAND, 10 MILES WIDE, ACROSS BLAINE COUNTY WHICH IS ON THE NORTH FLANK OF THE ANADARKO BASIN. ON THE SOUTH FLANK, THE UNIT FORMS A NARROW EAST-WEST BAND 100 FEET TO 1 MILE WIDE ACROSS NORTHERN KIOWA AND SOUTHERN WASHITA COUNTIES. IT THEN OUTCROPS IN IRREGULAR PATTERNS ACROSS SOUTHERN BECKHAM, NORTHERN HARMON, AND NORTHERN GREER COUNTIES. SOUTHWARD, IT FORMS A NORTH-SOUTH BAND 3 TO 8 MILES WIDE ACROSS CENTRAL GREER AND JACKSON COUNTIES. TOPOGRAPHICALLY, THE UNIT TYPICALLY FORMS VALLEYS WHERE THE OUTCROP IS NARROW. ELSEWHERE, THE UNIT FORMS GENTLY ROLLING TO NEARLY LEVEL TOPOGRAPHY. SHORT GRASS IS THE MAJOR VEGETATION. LOCALLY, MESQUITE, CACTI AND NEARLY BARREN ROCK EXPOSURES DENOTE AREAS CONTAINING SALT OR GYPSUM. ACCORDING TO THE GEOLOGIC MAP OF THE "HYDROLOGIC ATLAS 5 OF OKLAHOMA," "RECONNAISSANCE OF THE WATER RESOURCES OF THE CLINTON QUADRANGLE, WEST-CENTRAL OKLAHOMA," BY JERRY E. CARR AND DEROY L. BERGMAN U.S. GEOLOGICAL SURVEY, 1976, INDICATES THAT THE PROJECT SITE IS LOCATED OVER ALLUVIUM (QAL). THE DEPOSIT AND GEOLOGIC FORMATION ARE DESCRIBED THEREIN AS FOLLOWS: STREAM-LAID DEPOSITS OF SAND, SILT, CLAY, AND GRAVEL; THICKNESS RANGES FROM 0 TO ABOUT 170 FEET.

LEGEND

- SPT STANDARD PENETRATION TEST
- TCP TEXAS CONE PENETRATION TEST
- INTERPRETED ROCK LINE
- ▽ WATER ELEVATION 0 HRS AFTER DRILLING
- ▽ CAVE IN DEPTH
- ▽ WATER ELEVATION AFTER DRILLING

NOTE:
INFORMATION SHOWN ON THIS SHEET TAKEN FROM GEOTECHNICAL REPORT PREPARED BY RED ROCK CONSULTING DATED MARCH 25, 2015. A COPY OF THIS REPORT IS AVAILABLE FROM THE DEPARTMENT UPON REQUEST.

USE INTERPRETED FOUNDATION MATERIAL LINE FOR ESTIMATING PURPOSES ONLY.

WATER ELEVATIONS SHOWN WERE OBTAINED AT THE TIME BORINGS WERE DRILLED AND MAY FLUCTUATE THROUGHOUT THE YEAR.

S.H. 44 OVER ELK CREEK		KIOWA COUNTY	
Design	RRC	Detail	BAB
Check	DLW	WHITE ENGINEERING ASSOCIATES	
FOUNDATION REPORT		SHEET 1 OF 2	
STATE OF OKLAHOMA		DEPARTMENT OF TRANSPORTATION	
JOB PIECE NO. 28999(04)		SHEET NO. 20	