CHAPTER 12.0

GEOTECHNICAL INFORMATION

EMERY MINE

CONSOLIDATION COAL COMPANY

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12.0 GEOTECHNICAL

12.1 Scope

This chapter contains information regarding the pertinent geotechnical aspects of the Emery Underground Mine and detailed information related to subsidence.

12.2 Methodology

The Emery Mine has been in existence since the late 1800's. Consol took over the operation in 1975. Since that time Consol has experimented with various types of pillar design and section layouts, as well as performing highly technical testing programs on the coal and overlying strata. This has been, and will be, a continuing process, but the material contained herein reflects the most current information available regarding general mine design and subsidence control.

12.3 Underground Mine Design

This section discusses the pertinent parameters used in designing the underground excavations at the Emery Mine.

12.3.1 Geotechnical Tests and Analysis

Like most mines that have been operating for a number of years, the design of underground openings have, for the most part, been determined by trial and error. However, geotechnical data have been collected that may be used to model rock mass response to mining. The following are some of the area-wide material parameters that have been determined.

	Coal	Main Roof
Compressive strength	5,000 psi	11,000 psi
Young's modulus	$.44 \times 10^6$ psi	1.8×10^6 psi
Poisson's ratio	0.25	0.10

Theoretical angle of draw 12° to 18° as measured from vertical

"K" factor 2432 psi $ft^{\frac{1}{2}}$

12.3.2 Coal Pillar Design

As stated earlier the design of coal pillars at Emery has been dictated for the most part by past experience as well as state and federal regulations pertaining to roof control and ventilation. Therefore, the following minimum requirements are used to determine pillar size (see Figure 12-1).

Entry centers	Maximum 100 feet	Minimum 60 feet
Crosscut centers	Maximum 100 feet	Minimum 60 feet
Room centers	Maximum 100 feet	Minimum 32 feet
Room crosscut centers	Maximum 100 feet	Minimum 32 feet
Room depth	Maximum 600 feet (from last panel entry)	

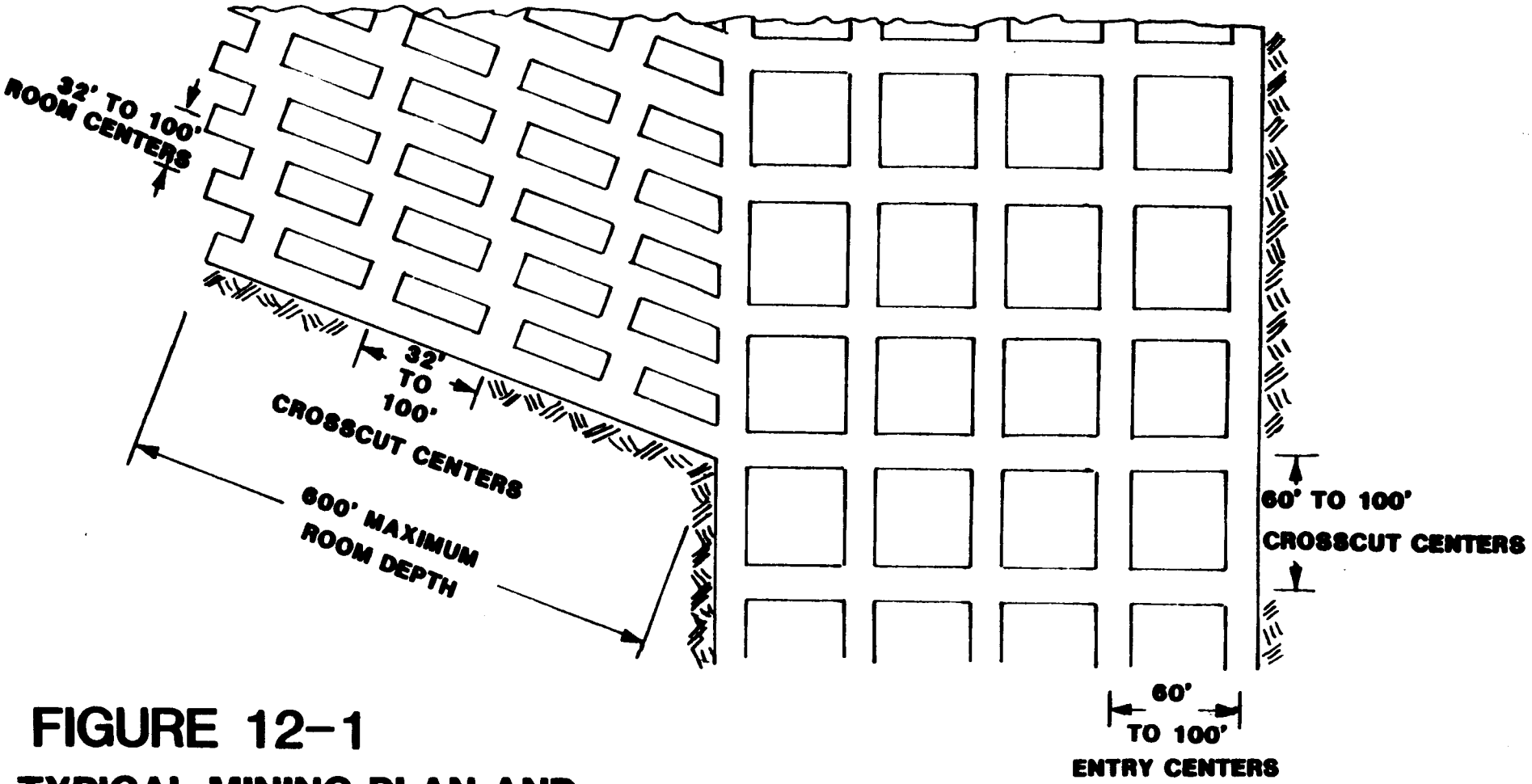


FIGURE 12-1

TYPICAL MINING PLAN AND DIMENSIONS OF OPENINGS

In addition to these pillar sizing criteria for "first pass" mining, the following rules currently apply to second pass, or retreat mining operations, as approved by MSHA for the Emery Mine.

Partial mining of pillars measuring 80'x100': No more than three (3) lifts measuring 20 feet wide may be taken. (reference figure 12-2)

Partial mining of pillars measuring 100'x100': No more than four (4) lifts measuring 20 feet wide may be taken. (reference figure 12-3)

Geotechnical investigations over past years have also provided information on the Emery coal field which may be used to design pillars for longterm stability and to predict pillar failure. The following empirical relationships have been derived and are used extensively in this chapter.

$$\sigma p \text{ (psi)} = K\, W^{.5} H^{-1}$$

Where:

σp (psi) = Pillar compressive strength
K = A constant for a particular coal seam
W = Least pillar width
H = Mining height

"K" is determined empirically from coal strength data. The "K" value for Emery coal is in the range of 2600 psi $ft^{\frac{1}{2}}$, but a "K" value of 2432 psi $ft^{\frac{1}{2}}$ has been applied with great success to eastern coals of comparable characteristics. This lower value will be used here to allow for a more conservative calculation.

$$\text{Pillar load carrying capacity} = \sigma p \,.\, AP = \frac{(K)\sqrt{W}}{H} \,.\, AP$$

$$\text{Pillar loading} = \gamma \,.\, d \,.\, AT$$

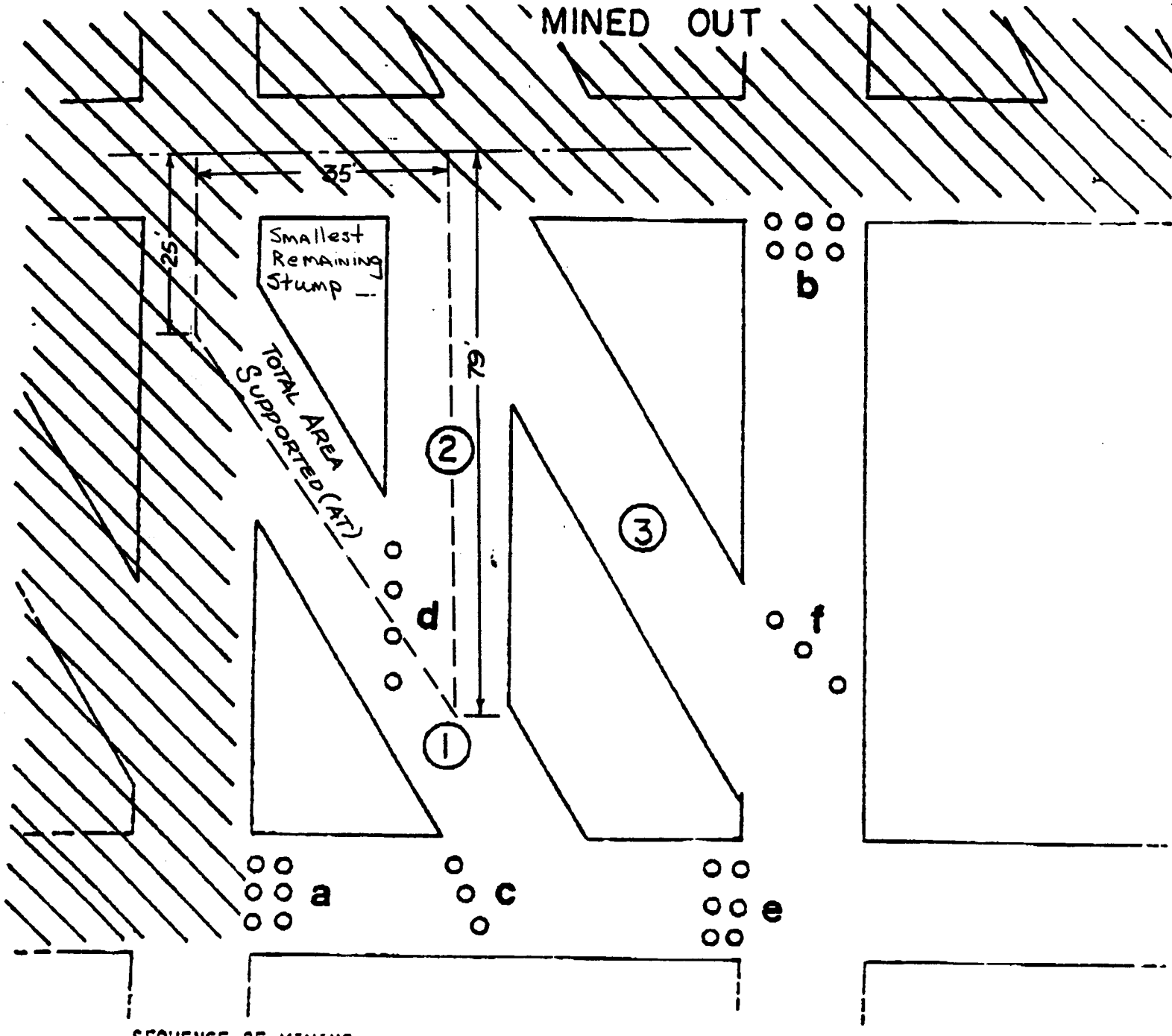
Where:

γ = Unit weight of overburden per foot of depth
d = Depth of overburden, (feet)
AT= Area supported by pillar, ($feet^2$)
AP= Area of pillar, ($feet^2$)

$$FS = \frac{\text{Pillar load carrying capacity}}{\text{Pillar loading}} = \text{Factor of Safety}$$

$$FS = \frac{(K)\sqrt{W}}{(H)(\gamma)(d)} \,.\, \frac{AP}{AT}$$

The above relationship will be used in the following sections to analyse pillar strength and predict pillar failure.

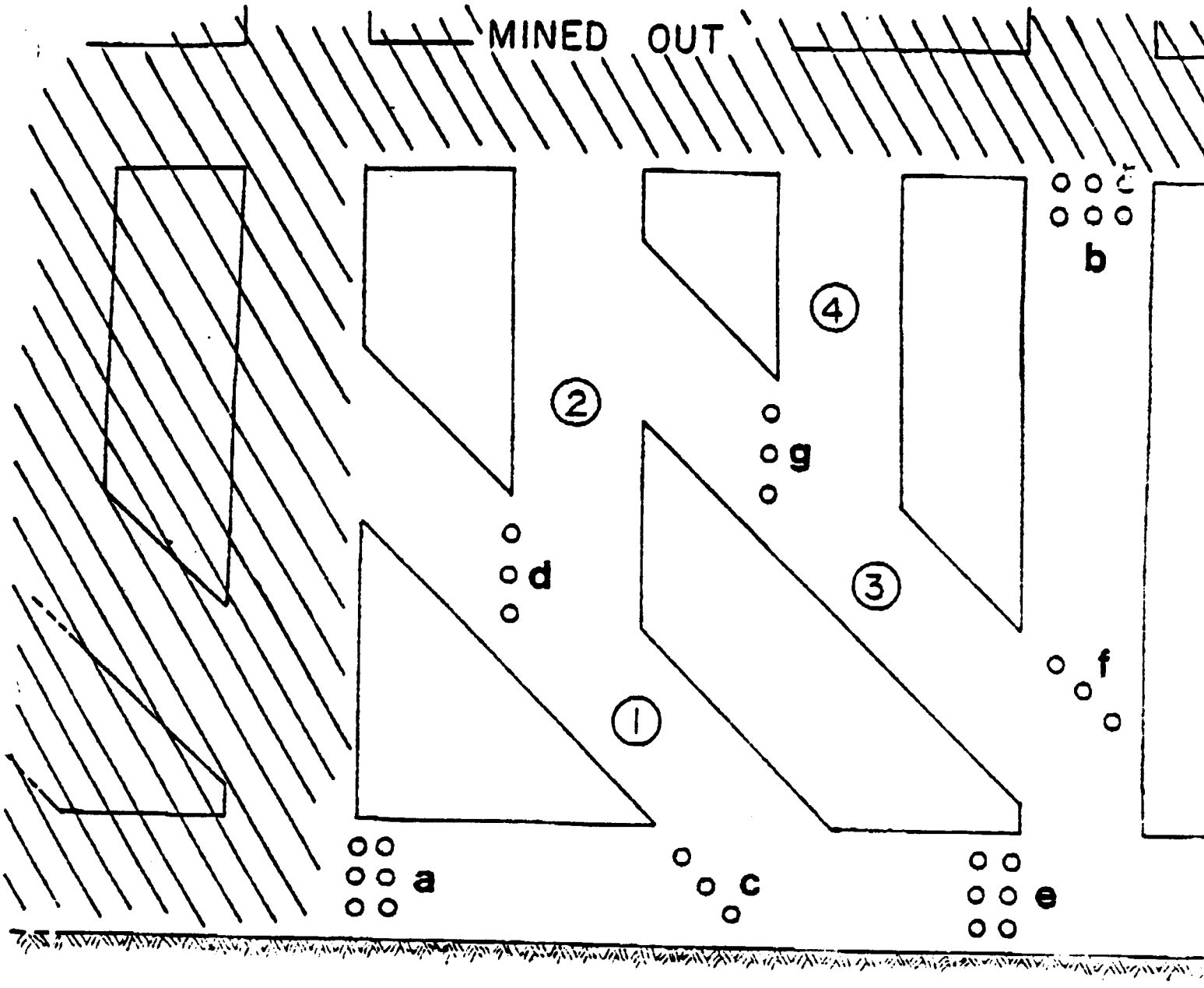


SEQUENCE OF MINING:

1. Install breaker posts (a) and (b) and radius posts (c)
2. Mine split #1
3. Install radius posts (d)
4. Mine split #2
5. Install breaker posts (e) and radius posts (f)
6. Mine split #3

FIGURE 12-2

. /PICAL SECOND PASS MINING OF ENTRY PILLARS MEASURING 100' X 80'



SEQUENCE OF MINING:

1. Install breaker post sets (a) and (b) and radius posts (c)
2. Mine split #1
3. Install radius posts (d)
4. Mine split #2
5. Install breaker posts (e) and radius posts (f)
6. Mine split #3
7. Install radius posts (g)
8. Mine cut #4

FIGURE 12-3

TYPICAL SECOND PASS MINING OF ENTRY PILLARS MEASURING 100' X 100'

12.3.3 Roof Span Design

The design of roof spans is dictated by state and federal regulations as well as past experience. The following parameters are taken from the approved roof control plan for the Emery Mine.

1. Roof spans should be contained to a maximum of 18 feet, unless specified otherwise. If mining widths should exceed the specified limit, additional support shall be installed on 5 foot centers so that the unsupported width is within the maximum.

2. When second mining room or entry pillars, the roof span in any lift shall not exceed 20 feet.

12.4 Surface Subsidence Effects of Mining

This section describes the mechanisms, probability, and possible effects of mining related to subsidence in the Emery area. See the presubsidence survey in Appendix 12-1.

12.4.1 Subsidence Mechanisms

The amount of subsidence created by a mining operation is determined by the following parameters:

1. Character of the coal seam
2. Character of the overburden
3. Character of the underlying strata
4. Thickness of the coal seam
5. Thickness of the overburden
6. Amount of coal removed

In the Emery area, the coal in the I zone mining interval is relatively hard and averages approximately 10 feet thick. The overburden is characterized by hard interbedded sandstones and shale ranging from less than 100 feet thick at the outcrop to 800 feet thick near the Joe's Valley fault. The underlying strata is composed of thin claybeds or soft shales.

The extraction ratio in a given area is the most significant parameter influencing subsidence. The ratio, of course, depends upon the mining method employed. Methods used may vary the ratio of extraction in the mining interval (excluding barriers) from 40% in the case of advancing sections to 72% in some retreat sections where partial extraction is used exclusively.

The mining method under partial extraction was originally designed to allow for maximum extraction during second mining while leaving sufficient coal in the stumps to maintain the overlying strata. However, Consol has found that as more panels are mined out in a given area combined with stump deterioration over time, subsidence does occur as evidenced by the data in table 12-1. For this reason Consol believes that subsidence may result from the current retreat mining practices.

Table 12-1

SUBSIDENCE MONITORING RESURVEY OF STRATEGIC MONUMENTS

January 1981 Survey

Station	Northing	Easting	Elevation	Location
SM-W	194616.64	2065467.15	5957.05	2-Right Pillar Section

November 1982 Survey

Station	Northing	Easting	Elevation	Location
SM-K3	197305.54	2071450.64	6083.66	2-East Pillar Section

July 1983 Survey

Station	Northing	Easting	Elevation	Location
SM-K3	197305.00	2071450.93	6078.33	2-East Pillar Section
SM-W	194616.20	2065465.95	5955.36	2-Right Pillar Section

SURVEY DISCREPANCIES

Station	Horizontal Discrepancy	Vertical Discrepancy
SM-K3	0.61 feet	-5.33 feet
SM-W	1.21 feet	-1.69 feet

12.4.2 Projected Subsidence Effects

During the period between 1981 and 1983 a great deal of geotechnical data were collected by Consol. These data included analytical testing of overburden and coal as well as field measurements of possible subsidence effects. Until July of 1983 the subsidence effects of current mining techniques were thought to be less than marginal; however, the subsidence monitoring surveys of July 1983 did indeed indicate significant movement on two (2) monuments overlying partial pillar sections. Therefore, using the analytical parameters developed during this period, the possible effects of subsidence are as follows.

12.4.2.1 Anticipated surface effects of Partial Pillaring

The source of subsidence starts with the underground operation and, in the case of partial pillar recovery, is dependent upon the strength of the remaining stumps. Because mining and geomechanics are not exact sciences we must determine a range of constraints within which we could expect to witness subsidence due to failure of the remaining stumps.

The basic assumption to be made here is that failure of the stumps, roof, and upper strata within a pillared out area is determined by the strength of the smallest stump remaining after partial pillar recovery. In other words, failure of the smallest stump will propagate failure of surrounding stumps causing a massive roof fall, and therefore, (at least localized) subsidence.

Because the smallest stump rarely has a regular shape and consistent dimensions, a definitive calculation is impossible. However, minimum hypothetical stump dimensions can be reasonably estimated, which adequately reflect actual mining conditions.

If partial extraction takes place according to plan, the smallest stump remaining in a particular pillar should approximate an effectively square block measuring 15 feet on a side by 9 feet in height (nominal mining height in retreat sections), supporting an area of 2,000 square feet. The stability of this block would then dictate the probability of failure in the remaining stumps. Given these initial assumptions the following calculation may be performed.

Given: Average mining height = 9 ft
Dimensions of stump = 15' x 15'
Factor of Safety = 1.0
Area supported = 2,000 ft^2

Relationship: $$d = \frac{(K)(\sqrt{W})}{(FS)(\gamma)(H)} \cdot \frac{AP}{AT}$$

Where:
FS = Safety Factor = 1.0
K = Pillar Strength Parameter = 2432 psi ft.
γ = Unit weight of overburden = 1.1 psi per ft.
W = Width of Stump = 15 ft.
AT = Total area supported = 1,000 $ft.^2$
AP = Area of pillar = 15 x 15 $ft.^2$
d = Overburden depth = variable
H = Nominal mining height on retreat = 9 ft.

Then: $$d = \frac{(2432)(\sqrt{15})}{(1.0)(1.1)(9.0)} \cdot \frac{(15)^2}{(2000)}$$

$$d = 107 \text{ ft.}$$

The above analysis indicates that at depths greater than 100 feet the smallest stumps remaining, after partial extraction, may become unstable, and although subsidence may not be imminent, it is probable.

The extent of surface disturbance caused by partial extraction is determined by the following parameters.

The area wide extraction ratio
Overburden depth
Swelling index
Angle of draw
Mining height
Panel length
Panel width
Time
Height of caving

Because several of the above parameters can vary with panel design, depth, and extraction ratio a "present operations" point of view should yield the predicted subsidence effects of past and future operations.

The following parameters will be used in this analysis.

Area extraction ratio (R) = 72%
Average center to center pillar width (Stump width) = 40 ft.
Angle of draw (α) = 12° to 18°
Nominal mining height on retreat (H) = 9 ft.
Overburden depth (d) = 200 to 800 ft.
Panel width (Wp) = 900 ft.
Panel length (Lp) = 3000 ft.
Maximum possible subsidence (S) = dependent
Caving height = 30 to 50 times the effective mining height or 1/3 the panel width

Effective mining height (He) = H x R

Relationships:

Subsidence factor (Fs) = S/H
Critical Width (Wc) = 2(d) TANα
(panel width at which Subsidence is maximum (S max). If Wp is less than Wc, S will be less than S max)

Calculations:

depth (d) = 200':

Wc = 2(200) TAN 18° = 130 feet
Wp = 900'
Wp is greater than Wc therefore S = S max

S = S max = Fs x H

Using monograph in Figure 12-4
[d x pillar width x (1 - R)] /1000 = (200)(40)(1-.72)/1000 = 2.24

from monograph Fs = 0.60

S = .50 x 9.0 = 4.5 feet

Therefore a maximum surface deflection (over a partial pillar section) of 4 to 5 feet may be expected at a seam depth of 200 feet.

The following values were obtained for other seam depths.

depth (d) = 400':

Wc = 260'
Fs = 0.36
S = 3.2'

depth (d) = 600':

Wc = 390'
Fs = 0.27
S = 2.4'

depth (d) = 800':

Wc = 520'
Fs = 0.19
S = 1.7

The preceding calculations demonstrate that various degrees of surface deflection could be expected from partial pillar recovery. Because of the nature of partial extraction the topographic changes over a particular area are uncertain, as compared to total extraction. This is due to the possibility that not all of the remaining stumps may fail, or they may fail over extended periods of time. Therefore, subsidence may take the form of localized depressions instead of a continuous trough that would be expected with full extraction.

The occurrence of surface cracks should be minimal for the following reasons.

1. Past experience has demonstrated that stump failure at shallow depths is a slow and haphazard process. This probably has the effect of localizing the cave zone and allowing time for the softer upper strata to deform plastically.

2. At depths in excess of 300 feet the cave zone should not intercept the surface thereby allowing the upper strata to deform plastically.

An investigation of the surface areas surrounding the subsidence monitoring stations listed in Table 12-1 revealed no evidence of cracking. However some tension cracks may be expected where the sandstone is exposed, or over underground barrier pillars.

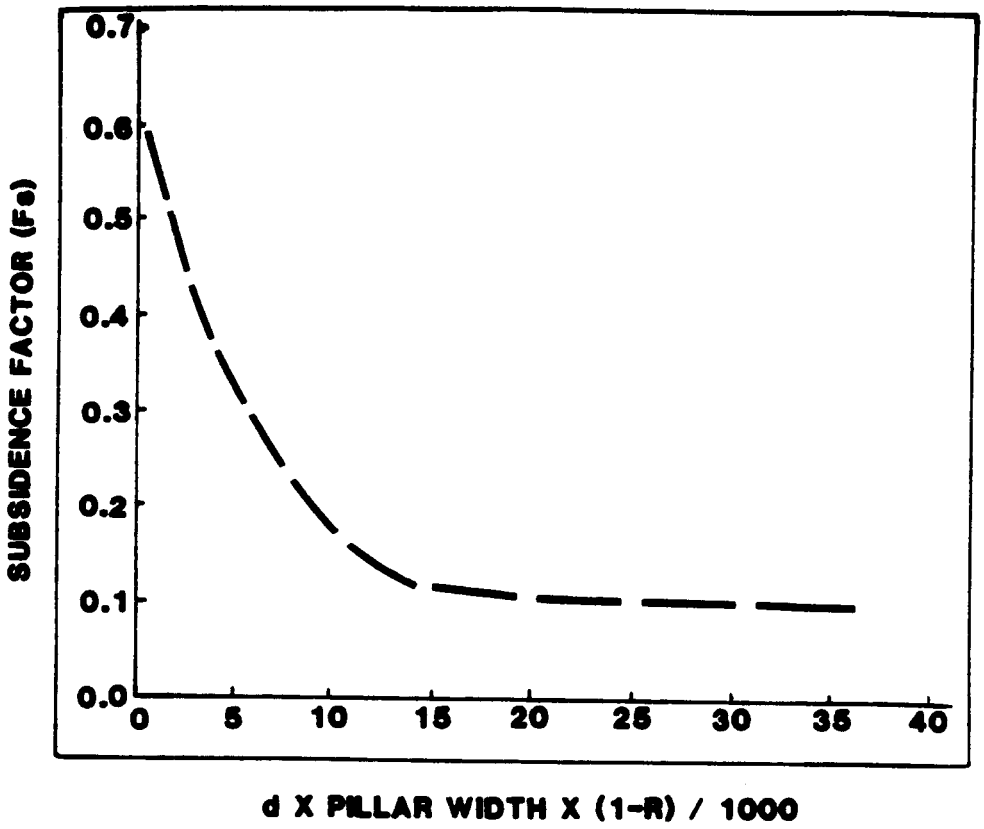


Figure 12-4 Subsidence factor vs(seam depth) x (center to center pillar width) x (extraction ratio for room and pillar mining without full extraction)

(from Syd S. Peng and S. L. Cheng, May 1981)

12.4.2.2 Anticipated Subsurface Effects of Partial Pillaring

Given that subsidence over partial extraction panels could occur, various subsurface deformations maybe expected, depending upon the seam depth. Deformation would probably take the form of plastic deflection of strata near the surface to fracturing and rubblization of strata closer to the mined out areas.

It is anticipated that the cave zone over partial recovery areas will be erratic in both its lateral and vertical extent. Theoretically, the cave zone could extend up to 50 times the effective mining height or about 300 feet, (ie: (9)(.72)(50) = 324'). The actual caving height would probably be somewhat less, in that total failure of all remaining stumps would occur over an extended period of time, allowing for some plastic deformation of upper strata.

12.4.3 Subsidence Control and Mitigation Methods

With the knowledge that the underground operations at the Emery Mine could cause material damage to surface lands and structures, and within the context of UMC 817.121 of the Permanent Regulatory Program Consol intends to employ the following subsidence control and mitigation measures.

12.4.3.1 Subsidence Control

In areas where Consol intends to provide protection of the surface, (such as near perennial streams or significant structures), based upon the ability to economically mitigate anticipated damage due to subsidence, or where mining practices would constitute a violation of UMC 817.126 and/or 761.11 of the Permanent Regulatory Program, the following measures will be taken; unless otherwise agreed upon by Consol, the regulator authority, and where applicable, any owners of record.

1. A "buffer zone" will be created to protect the "designated surface areas" by leaving pillars of adequate size (as defined in (2) below) on all sides of the designated area. The dimensions of the buffer zone will be determined by the overburden depth and the angle of draw, as follows.

   "Minimum buffer distance" = depth X TAN 18°

   The minimum buffer distance will be applied in all directions from the perimeter of the designated surface area.

2. Pillar dimensions within the "buffer zone" should be determined by applying the following equation

$$FS = \frac{(K)\sqrt{W}}{(H)(\gamma)(d)} \cdot \frac{AP}{AT}$$

Where:
- FS = Factor of Safety = 1.75 minimum
- K = Pillar strength parameter = 2432 psi $ft^{\frac{1}{2}}$
- γ = Unit weight of overburden = 1.1 psi per foot of depth
- W = Least pillar width, in feet
- d = Overburden depth, in feet
- H = Nominal mining height, in feet
- AT = Total area supported
- AP = Area of pillar

The above equation will be applied to the smallest pillars proposed to be left within the buffer zone when final planning of mining sections is being performed. The resulting factor of safety should be <u>at least</u> 1.75. If the factor of safety is less than 1.75 an alternate pillar design should be used which results in a factor of safety of 1.75 or greater.

Final planning of mining sections should incorporate the application of steps (1.) and (2.) for surface protection such that all pillars within the buffer zone meet the criterion of step (2.).

An example calculation:

Given: Overburden depth = 400 ft.
Nominal mining height = 9 ft.
Proposed buffer pillar dimensions = 50'x100' center line distance
Maximum entry width = 18 ft.
K = 2432 psi ft.^{2}
= 1.1 psi per foot of depth
Angle of draw = 18°

Step 1.:

"Minimum buffer distance" = 400 x TAN 18° = 130 ft.

Therefore the buffer zone should extend 130 feet in all directions from the perimeter of the designated surface area.

Step 2.:

Relationship: $$FS = \frac{(K)\sqrt{W}}{(H)(\gamma)(d)} \cdot \frac{AP}{AT}$$

AP = (100-18) x (50-18) = 82 x 32 = 2624 ft.^{2}
AT = (100 x 50) = 5000 ft.^{2}

$$W = \frac{(2432)\sqrt{32}}{(9)(1.1)(400)} \cdot \frac{2624}{5000} = 1.82$$

1.82 is greater than 1.75, therefore the minimum pillar dimensions are adequate for buffer zone protection of the designated surface area in this example.

Mining, in this example, should be planned such that all pillars within the buffer zone measure no less than 50' x 100' center line distance.

As a supplement to the proposed algorithm for determination of buffer zone design, additional subsidence monitoring stations should be installed as necessary in designated surface areas, to detect surface movement should subsidence occur.

These procedures as well as any pertinent surface investigations shall be employed during the final detailed design stages of each new mining area, but no later than three (3) months prior to undermining the surface areas to be protected.

12.4.3.2 Subsidence Mitigation

If subsidence should materially damage, reduce the value, or alter the usage of surface lands and structures as described in UMC 817.124 of the Permanent Regulatory Program, Consol intends to do the following:

1. If it is demonstrated to the satisfaction of Consol and the regulatory authority that subsidence attributed to mining operations has materially damaged a significant structure or reduced its value, or if surface lands have been reduced in value or the usage altered, Consol will mitigate the damage as mutually agreed upon by Consol, the regulatory authority, and/or the owner of record. The options that may be used in the mitigation process may include, but are not limited to, the following, as outlined and expanded upon, in UMC 817.124 of the Permanent Regulatory Program:

   (a) Restore, rehabilitate, or remove and replace, to the extent technologically and economically feasible, each materially damaged structure, feature or value.

   (b) Purchase the damaged structure or feature (except structures or features owned by the person who conducts the underground coal mining activities) for its pre-subsidence fair market value.

   (c) Compensate the owner of any surface structure that has been materially damaged by subsidence.

12.4.4 Subsidence Monitoring Plan

In general, the following constraints will be used in subsidence monitoring:

1. A series of reference points will be established outside the theoretical angle of draw for a particular area of mining.

2. New reference points will be established as the area of mining increases to include old reference points.

3. Subsidence monitoring should, at a minimum, be established: a) at a point coincident to the geometric center of high extraction panels at least three months prior to mining activities beneath the station, and b) at periodic intervals over mains and submains at least three months prior mining activities beneath the stations.

4. New monitoring points established over partial pillar sections will be resurveyed within six months after final mining has taken place beneath them.

5. New monitoring points established over advancing sections such as mains and submains will be resurveyed within one year after mining has been completed beneath the station.

6. Monitoring points over partial pillar sections that have been resurveyed once and where no significant movement (±.5') was found will be surveyed again within one year. If this subsequent survey shows no significant movement from the original survey, the point will be surveyed again at one year intervals. Monuments over advancing sections need not be resurveyed unless there has been evidence underground, (such as massive caving) that indicates subsidence may have taken place above them. If these sections have been abandoned, resurveys shall take place every two years.

   This program will remain in effect during the permit term (5 years), after which it will be reevaluated and modified if necessary to reflect the data collected to that point.

7. If a resurveyed point does demonstrate significant movement, the Division shall be notified of the survey discrepancies, and the point resurveyed at six-month intervals until no movement is indicated. Subsequent surveys will then take place as indicated in item 6.

8. When a new monument is installed it shall be surveyed (the "initial survey"), into a closed loop containing at least one "reference point", or any other point, (not located over high extraction areas) that is "linked" to a reference point, and has been surveyed within 6 months prior and no movement found. The initial survey should consist of a horizontal traverse

having a closure of at least 1:10,000 and a vertical traverse having a closure of at least 0.10 feet.

9. Resurveys of a point should consist of a vertical traverse having a closure of at least 0.50 feet. If significant movement is detected, (±.5') a horizontal survey to that point will also be performed to check horizontal movement. The horizontal check survey may consist of a "side shot" where angles and distance are double checked, and need not be a closed traverse.

10. Monitoring monuments will consist of a concrete base and brass cap installed according to Figure 12-5.

This monitoring procedure should allow complete determination and definition of subsidence should it occur while minimizing surveying costs if subsidence does not occur.

Consol established a grid of subsidence monitoring stations in May 1980 over active workings and workings that were abandoned within the prior year. These points were resurveyed in November 1980 and the results are shown on Table 12-2.

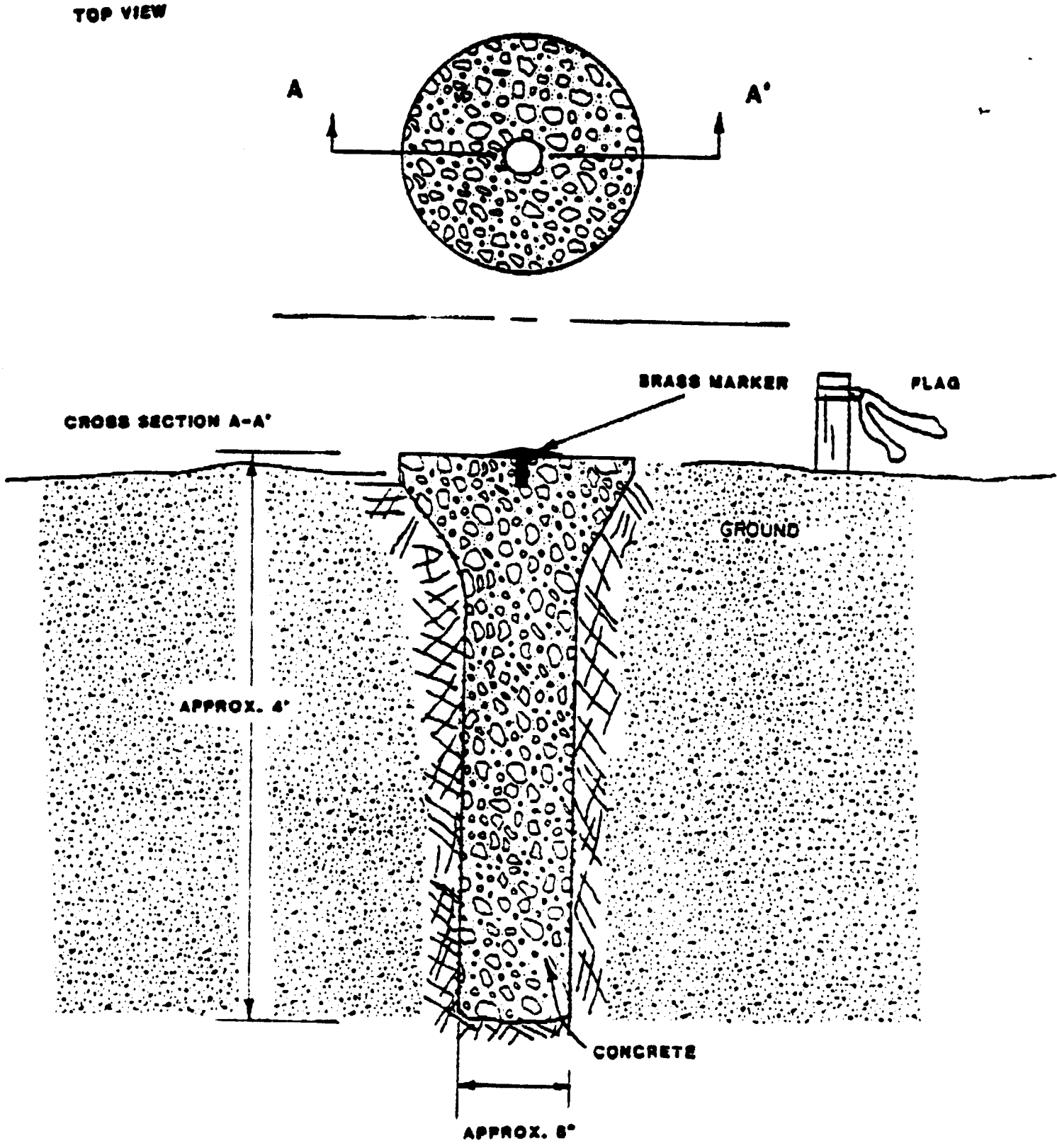


FIGURE 12-5
TYPICAL SUBSIDENCE MONITORING MONUMENT INSTALLATION

TABLE 12-2

SUBSIDENCE MONITORING POINTS RESURVEY

1980

Station	May Elevation	Nov. Elevation	Change in Elevation	
PP-13	6116.14	6116.14	-	Reference
I	6065.29	6065.37	+.08	
H	6053.48	6053.56	+.08	
H-5	6047.41	6047.51	+.10	
VE-1	6070.77	6070.86	+.09	
G	6043.70	6043.80	+.10	
H-3	6063.03	6063.10	+.07	
H-1	6078.84	6078.88	+.04	
H-2	6083.06	6083.10	+.04	
H-4	6076.26	6076.33	+.07	
H-6	6092.40	6092.42	+.02	
H-8	6094.90	6094.85	-.05	
K	6109.99	6110.00	+.01	
J	6128.06	6128.08	+.02	
F	6099.20	6099.21	+.01	
E	6079.42	6079.43	+.01	
C	6047.81	6047.85	+.04	
PP-8	6095.98	6095.98	0	
A	6039.90	6039.91	+.01	
B	6036.39	6036.42	+.03	
D	6060.71	6060.71	0	
VE-2	6090.83	6090.80	-.03	
PP-12	5985.67	5985.67	-	Reference
VE-4	5956.20	5956.29	+.09	
H-11	5940.51	5940.51	0	
R	5954.09	5954.19	+.10	
Q	5931.15	5931.17	+.02	
P	5941.13	5941.24	+.11	
O	5952.63	5952.72	+.09	
H-9	5943.36	5943.45	+.09	
H-7	5948.82	5948.85	+.03	
N	5948.44	5948.46	+.02	
M	5954.31	5954.31	0	
L	5946.18	5946.18	0	
H-10	5938.07	5938.12	+.05	
VE-5	5940.70	5940.70	0	
H-12	5958.88	5958.84	-.04	

12.5 Stability Analysis of Earthen Structures

The mine discharge sedimentation pond and evaporation lagoon are the only earthen structures in use that could conceivably pose a hazard to the public or environment. Consol proposes to reclaim the evaporation lagoon. Consol does not plan any additional earthen structures to the mine facilities at this time. Thus, most of the information required under this section does not apply.

12.5.1 Type of Structure

The structure addressed here is an existing sedimentaiton pond which was constructed by excavation.

This sedimentation pond is an impounding structure with a design storage volume of 19.3 acre-feet. It is located on property owned by Consol and is a large distance from any public or private structures. The pond is an excavated structure with riprap installed on the inside banks to avoid wave erosion. The only hazard that the pond may pose is uncontrolled discharge by erosion of the inlet or outlet.

The inlet is a concrete structure. The outlet is also made of concrete and the discharge route to the tributary of Quitchupah Creek is partially made of concrete and riprap.

12.5.2 Construction Material Characteristics

Not applicable.

12.5.3 Foundation Material Characteristics

Not applicable.

12.5.4 Hydrologic Characteristics

Not applicable.

12.5.5 Design and Construction Plans

Not applicable.

12.5.6 Stability Analysis

Not applicable.

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APPLICATION OF REMOTE IMAGERY LINEAMENTS FOR UNDERGROUND COAL MINES

by

D. L. McCain*

&

S. A. Cotten*

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*Conoco Inc.
R&D Dept.
Coal Research Div.
Ponca City, OK

APPLICATION OF REMOTE IMAGERY LINEARS FOR UNDERGROUND COAL MINES

Abstract

Linear features found by study of images produced by remote imaging systems are not universally associated with ground control problems encountered in underground coal mining. Our experience indicates that linear analysis alone cannot be used to predict ground instability in advance of mining. The relationship of linears, or lineaments, to actual geologic structure must be verified on the ground, and tectonic structures revealed by linear analysis must be subsequently evaluated using available geological, geophysical, and rock mechanics information before certain underground conditions can be anticipated confidently.

Introduction

Linear topographic, geologic, or biologic elements reflecting the bedrock or geomorphic characteristics of an area have been recognized by geologists for more than a century (Wise, 1982, p. 886). The advent of high resolution aerial photography, then satellite photography, and subsequently, more exotic imagery techniques made possible by technological advances of the last 20 years have fostered a renewed interest in the analysis of linear features and the application of the analysis to many different problems.

Attempted prediction of ground control problems in underground mining is one new application developed within the past decade (Rinkenberger, 1977, p. 336). Although success in this particular application is often difficult to define, variability in geologic conditions and inherent limitations in image formation and analysis techniques restrict the usefulness of linear analysis mainly to that of a preliminary reconnaissance technique.

Roof problems in underground coal mines can be associated with geomorphic characteristics or with depositional conditions. Lineament analysis is related to the expression of geomorphic processes while many roof problems found in mines are related to depositional processes only.

What are linears, lineaments, or linear features?

In general, they are lines that appear in images of the earth's surface. Such lines are narrow compared to their total length and may be straight, slightly bent, have dog legs, or be somewhat disconnected but aligned (Jackson, 1982, p. 5).

A lineament can be produced by only two characteristics of the surface, composition and geometry. Composition is determined by soil, rock type, vegetation or surface cover, and water content. Geometry concerns topography, shape, and size of the vegetation and other features of surface roughness (Jackson, 1982, p. 5).

Factors Controlling the Interpretation of Linears

The appearance of linears is controlled by several factors in image formation. First of all, scale, and the associated resolution of the image, is important. Obviously, images produced by satellites or high-altitude aircraft are regional in nature and have resolution limits which preclude seeing small, detailed features on the ground. These detailed features become more apparent in low-altitude aerial photographs which give a more detailed, local coverage of surface features and which can be better correlated to mine maps.

Another factor to consider when observing any sort of image is the angle of illumination. A low illumination angle, up to certain

limits, provide the best definition of both geometry and composition of the earth's surface and therefore is a desirable characteristic for images used in linear analysis. Illumination angles, however, can provide preferential exposure of linears oriented in a certain direction while masking linear-features oriented along other strikes. The season of the year also can effect what appears or does not appear as a linear on an image. Vegetation, or other ground cover, will change seasonally as will the moisture content of the soils. In some cases, cloud cover varies seasonally and may limit the usefulness of available images produced during certain seasons of the year.

Another very important factor in linear interpretation is the skill of the interpreter. Identification and interpretation of linears must be performed by humans, who are notoriously erratic, imaginative, and occasionally prejudiced let alone astigmatic (Jackson, 1982, p. 6).

Experience is obviously an important factor. An interpreter must be aware of all of the factors controlling image formation. The interpreter must also be skilled enough to be able to distinguish between cultural features and geologic features. Cultural features may be vehicle tracks, fence lines, old pipeline rights of way, powerlines, and other man-made features which may have a linear appearance. An interpreter must also be able to discriminate between important and unimportant geologic features. A fault trace would obviously be important for our consideration, but wind streaks in surface alluvium would not.

Finally, as far as the interpreter is concerned, there is the matter of subjectivity. Some lineaments are subtle, or bearly perceptible. Interpreted linears may be, in some instances, merely a creative imagination of the observer. At the edge of perceptibility human imagination and creativity can come into play, because, after all, a person who is looking for linears is much happier if he can find them (Jackson, 1982, p. 6). An amusing commentary on the extreme effects that subjectivity can produce is offered by Don Wise of the University of Massachusetts (Wise, 1982).

Assuming that the significant geologically related linears have been correctly identified on an image, what can or do these linear features acutally represent? Well, the meaningful ones to this consideration are discontinuities in the crust which are evident at the surface, meaning primarily tectonically related geologic structures, such as faults, shear zones, joint systems, dense fracture zones or folds. Again, the scale of the suspected discontinuities or the structures will be determined by the scale of the image employed.

Limitations of Linear Analysis to Underground Hazard Prediction

There are certain limitations in applying linears to underground hazard prediction. Assuming that a linear does actually represent a tectonically related structure, the presence of this structure does

not automatically indicate ground control problems at the mine level. For instance, faults that are detected may be inactive, locked, or cemented. This could mean that the effect of fractures at depth may be minimal or that water cannot percolate down to the mine level through the fault zone. Jointing patterns which are apparent on the surface also may not reach or be detectable at the mine level.

A second consideration is that conditions may change along the length or the depth of a given fault. Fault offset may vary along dip and strike. Gouge or fracture zones associated with faulting can, and do, appear and disappear. Finally, mine entries may be oriented to minimize the effect of the fault, joints, or fractures. Entries parallel to such features may be, in general, hazardous. Those running obliquely or perpendicular, however, are, in general, fairly stable.

Another limitation on the application of linear analysis to hazard prediction underground is that linears may be difficult to accurately correlate with the mine plan. Obviously, this is not a problem with surface mines, but in many instances, enlargement of some remote images may distort the image or provide insufficient resolution to correlate accurately with the mine plan underground. Secondly, instances arise where the mine plan itself is not accurately correlated with topography or surface features making close correlation of image linears with effects underground problematic.

Surface expression of linears may not project vertically to the underground expression, therefore, surface expression of a linear may be horizontally translated from its expression underground because of the dip associated with the fault or fracture. Also, a linear may represent features with which hazards may be associated but are not coincident. A linear, therefore, may overlay a certain point on the mine plan, but potential hazards may be translated horizontally when encountered underground.

One of the most important points to consider is that bad top is not always associated with linears or intersections of linears. Even in mines where a large percentage of the roof falls are correlated to mapped linears, the vast majority of the linear intersections and lengths of linears do not present any roof control problems.

Last, many examples of bad top are shown to be characterized by sedimentary, and not tectonic, conditions. A recent Bureau of Mines Report (R.I. 8660, 1982) by Jacqueline Jansky and Paul Jeran attempts to relate linears interpreted from LANDSAT and high altitude aerial images to poor roof conditions in a West Virginia mine. Figure 1 demonstrates there can be roof problem areas which closely correlate with linears. Shown in the lower-right-hand corner of the diagram is a series of roof falls along an entry which is oriented parallel to a linear and which also encompasses the intersection of several linears. However, many other hazardous roof conditions do not correlate well

with the linears. Kettle bottoms, area of ripples, and numerous other roof falls, mostly related to sedimentary structures in the roofs are not coincident or nearly coincident with linears. These are related to local sedimentary conditions in the roof rock, which cannot be predicted by analysis of linears.

Therefore, the effective interpretation and use of linears requires awareness of certain pitfalls related to both linear identification and the true relationship of linears to actual conditions observed in a mine. We have conducted several studies in various regions of the country to determine the usefulness of linear analysis. Three cases will be presented for Utah, Tennessee and Virginia.

Mine A

Mine A was chosen for photolinear analysis because of its favorable geologic and environmental conditions. The mine is located near a large geological disturbance, the Joes Valley-Paradise fault zone as shown in Figure 2. In the mine region itself, the topography is relatively flat, therefore enhancing tonal and textural lines and emphasizing some subtle topographic linears. The semiarid climate is nearly ideal for this kind of study because it enhances any moisture distribution anomalies which may be apparent and provides a relatively cloud-free environment which allows high-quality photographs.

In the mine itself, most of the roof is excellent. Entries as wide as 20 feet are not supported, even by roof bolting. Therefore, the study was conducted to determine the possible effects of the major fault zone, that is the Joes Valley Paradise fault zone, on roof stability in certain areas of the mine where roof problems have been encountered.

Three images are available to cover the mine area. The first image, shown in Figure 3, is a LANDSAT image in the solar infrared band taken in December 1975 showing the area centered on the mine. Notice that most of the large structural features, faults and fault zones which were shown in Figure 2 are apparent as linear features in Figure 3. Also shown on this image are outlines of the other two images which are available. The first, shown as a large rectangle, is a Sky Lab photo approximately 110 by 110 miles square. At the very center of the LANDSAT image is a smaller square noting low-altitude aircraft photos. We'll consider both of these.

First is the Sky Lab photo and its interpretation, Figure 4. Notice that the Wasatch plateau is snow covered, thus showing up white in this image, and that more details are apparent than in the LANDSAT image. The lineaments are mostly parallel to the major fault zones, and there is a correlation between some short lineaments and the mine layout, but these are difficult to make out at this scale. This and an adjacent Sky Lab photo were used for stereoscopic analysis. Additional lineaments were therefore observed on this image because of

(1) the difference in scale, (2) a difference in sensing method, and (3) the stereo analysis.

In Figure 5, we see the low altitude aircraft photo of this region covering the mine and with the mine plan superimposed in the lower right corner. Notice the greater detail and a greater number of interpreted lineaments. The lineaments are particularly evident because many are dark in color associated with vegetation and groundwater conditions. Most are seen to be either parallel or perpendicular to the Joes Valley, Paradise fault zone as expected from regional lineament analysis of the other larger images.

All the lineaments which pass over the mine do not or cannot affect the roof condition of the mine because, for the most part, the mine has excellent roof. Above the mine, a major sandstone member of the geologic sequence which is exposed in Quitchupah Creek and Christianson Wash shows numerous joints which have no direct bearing on unstable roof in the mine below.

To determine which lineaments may be related to poor roof conditions in the mine, three assumptions, or three criteria, have been employed. First, it is assumed that the surface fracture zones which reach the coal seam and influence roof condition were produced by the same tectonic stresses which produced the Joes Valley-Paradise fault zone.

These stresses would be as follows: the principal stress in the vertical direction, the intermediate principal stress perpendicular to the fault zone, and the minor principal stress parallel to the fault zone. These stresses are likely to produce shear fracture zones at approximately 30-degree angles to the fault line. These zones may be expected to deviate ±15 degrees from this ideal direction when observed in the field.

The second assumption is that deep fractures are likely to be water-filled and thus observable by vegetation differences noted on the surface.

The third assumption was that an unstable roof is most likely to occur where the linears are closely spaced or intersect.

Underground bad roof conditions, when observed in the west mains tend to confirm image analysis prediction based upon those assumptions. Hazardous areas that have fractures in the shale roof produce water from these fractures and are supported with I beams and cribbing.

Therefore, the results of linear analysis for Mine A demonstrate that unstable roof occurs in limited areas near parallel or intersecting fractures some of which are revealed by image analysis. Furthermore, bad roof areas in the west mains correlate well with a cluster of lineaments seen on the Sky Lab and aircraft photos primarily because the fracture zone thus represented is filled with ground water.

Finally, all three imageries prove useful. The large images give a good feeling for the regional stresses necessary for interpreting linears evident from aircraft photos which yield the details necessary for mine correlation.

Mine B

The next mine, in Tennessee, suffers from chronic roof problems due primarily to high horizontal stresses related to regional tectonism which fractured roof rock in the mine. There are three roof fall types which occur. The first are stress induced falls; the second are very high falls; and the third are falls associated with depositional conditions, such as sandstone channels, a rider coal seam or carbonized fossils above the main seam, or slickensides produced by differential compaction of the mine roof.

Figure 6 shows the Pine Mountain thrust plate which is approximately 125 miles long and 25 to 30 miles wide. The displacement of this plate has been to the northwest about two miles at its northeastern end and approximately 10 miles at its southwestern end. The thrust has produced extensive folding along the length of the plate.

The mine itself is bounded by three secondary geological structures within the plate. The first is a reverse fault to the northeast, the second is a fracture zone to the southwest, and the third is an underthrust fault to the southeast. The Pine Mountain thrust fault itself forms the mine boundary to the northwest.

Mining occurs in the Jellico seam, which is approximately 4 to 5 feet thick, but six other mineable coal seams are located at the mine site above the Jellico seam. These have been surface mined and/or augered along the outcrop.

The surface topography is mountainous, and the surface mining techniques have caused some interference with linear interpretation.

An underground rock mechanics investigation reveals that the long falls which occur in the mine, many near the mine entries, are primarily induced by high horizontal stresses. When stress conditions and fractured roof rock coincide to contribute to the falls, the high falls, up to 30 feet in some areas, occur. The upper limit to these falls is provided by the horizon of a rider coal seam above. Stress analysis revealed that the major principal horizontal stress is oriented nearly parallel to the longitudinal direction of the Pine Mountain thrust plate, and that the minor principal stress is perpendicular to this direction.

Again, three different images are available for photo analysis: LANDSAT image, a NASA high-altitude aerial photograph, and a series of low-altitude aerial photographs.

The LANDSAT image evident in Figure 7 reveal large regional structures related to the Pine Mountain thrust plate and clearly demonstrate most of the geological structures associated with Pine Mountain thrust presented on the previous figure. The mine portals are located in the square surrounding Speedwell.

Dominant linears in the mine region, roughly parallel the Rocky Face fault. Less prominent linears also align with the boundaries of the thrust plate. Again because of the scale of this imagery, correlation of the evident linears to mine roof conditions is difficult, if not impossible.

The NASA high-altitude aerial photo shown in Figure 8 was taken with color infrared imagery. On this scale, the mine layout can be superimposed with some degree of confidence. Ground features, such as roads, farms, and houses, are all easily identifiable. The evident linears over the mine fall into three categories. First are those oriented north 20 degrees east which roughly parallels the thrust plate, and its shear conjugate. Second are linear trends oriented north 10 degrees west which are generally short and appear to be compressive in nature. Many of these are obscured over the mine because of extensive strip mining in the seams above the Jellico seam. Finally, the third set of linears are oriented east-west and are evident over the No. 1 and No. 2 portals, indicating that these portals are located in fractured areas, an assumption borne out by the numerous roof falls which occur near them.

Low-altitude photographs, over the mine show coal silos, mine offices, conveyors, and sediment ponds along strip pits in quite good detail. Stereoscopic analysis has revealed additional lineaments. A large number of lineaments are shown on this interpretation, Figure 9, giving the impression that they are oriented at random. However, the rock mechanics analysis can be used as a guide in interpreting these linears.

With the use of these linear analyses, it was hoped that potentially bad roof areas might be delineated for purposes of ground control. It was noted that the portals of the mine are located in disturbed areas, which lead to unstable roof conditions. However, in general, the bad roof conditions spread irregularly over the mine making prediction difficult, even with the aid of lineament analysis.

This photo lineament study was limited in its ability to locate unstable roof areas. It is difficult to recognize individual linears related to ground instability. The area has been eroded and weathered since the end of the Paleozoic period. Many of the interpreted linears coincide with local drainages, and others may be obscured by surface mining activity.

The study therefore serves only to complement the underground stress analysis. Further collection of data on the ground needs to be

obtained for further refinement of prediction of bad roof areas at the mine.

Mine C

The last example is a mine property in Virginia which is under development. The mine region has been overflown by aircraft using side-looking airborne radar (SLAR). The resulting images have been evaluated by the U.S.G.S. in a 1974 Report of Investigations, No. 7869 (Elder, et al). Two different flight path patterns, were flown, one oriented roughly east-west and the other northwest - southeast. Analysis of the resulting SLAR images reveal two predominant joint directions trending North 60° West, and North 25° East, and several major lineaments in the area, many of which are associated with known features. U.S.G.S. field studies examined joint orientations on the surface. Surface joint orientation measurements and SLAR imagery joint analyses were reported to be in good agreement.

The major known feature of interest here is the Keen Mountain fault, a strike slip fault, striking north 30 degrees west from Keen Mountain, Virginia, to Pistol Gap, Virginia, some 14 miles as shown in Figure 10. The amount of horizontal movement produced from this fault cannot be measured, and the vertical movement is highly variable, ranging from zero to 18 feet. Regional rock and coal bed jointing is essentially parallel to the strike of the fault. Additionally, one set of lineaments parallels the Keen Mountain fault and is located along Garden Creek.

Figure 11 demonstrates the relationship of the Keen Mountain fault, Garden Creek, and other lineaments to the Island Creek Coal Company Mines located to the north and west of the property.

In many areas of these mines, gas accumulation is a problem. Fault and fracture zones are permeable to gas and water and gas emission hazards occur because the strata both above and below the coal bed as well as the coal bed itself are gassy. Gassy areas in the Beatrice Mine roughly coincide with both the Keen Mountain fault and the Garden Creek lineament (U.S.B.M. RI 7869, 1974).

Figure 11 also indicates that poor roof conditions of the deep mines of the Pocahontas No. 3 coal bed roughly coincide with prominent SLAR lineaments interpreted as faults and/or fracture zones. According to the U.S.B.M. report, the poorest roof rock conditions generally occur along the strongest lineaments or at the intersection of lineaments where more intensely fractured strata would be expected.

Further consideration of the orientation of the lineaments relative to the Beatrice, VP-1, VP-2, and VP-3 Mine plans reveals that bad roof is widespread over the Beatrice, VP-1 and VP-2 plans and that nearly any line drawn across these plans would likely coincide with bad roof areas (Fig. 11). There is apparently no relationship between the

interpreted lineament and the poor top in the VP-3 Mine. The entirety of VP-4 lies under the drainage of Dismal Creek, the main expression of the linears in that region.

Certainly, ground control problems are more widespread in these mines than those related to linears alone.

Observations both underground in the Beatrice Mine and along surface expression showed that the vertical offset of the Keen Mountain fault along its length is highly variable. In the surface mines on the Mine C property, the noted vertical offsets range from one to four feet. In many cases, no offsets are observed in strip mines at the surface.

Exploratory drilling and geophysical investigations reveal that in the central part of the property, the fault is characterized by a gouge or shear zone, its offset may reach as much as 15 feet, and it will thus be a major consideration in mine development.

Therefore, the Keen Mountain fault is considered to be a potential hazard in mining on the property and will be approached cautiously. However, the surface effects that it has along its entire length in the mining property are not uniform and their true effects underground will not be known until mining operations actually approach the fault zone. It is anticipated that drag folding, the local Pocahontas #3 seam structure, and relative movement along this strike slip fault will cause displacement to vary, as experienced in the Beatrice Mine.

As for the Garden Creek lineament, which lies 600 feet southwest of the Keen Mountain fault, it strikes northwest southeast along Garden Creek and passes through the mine plant site, which involves three vertical shafts. It is classified as a lineament because no surface or subsurface evidence exists for any type of displacement. The evidence of its existence is derived only from the SLAR imagery and aerial photography. The presence of a lineament is attributed to the existence of a fracture system whose topographic expression has been enhanced by differential erosion. With the exception of vertical offset, the same types of mining problems that are associated with the Keen Mountain fault may well be expected along the Garden Creek lineament or any other major lineament. However, in the shaft development which occurred in the Garden Creek Valley, no difficulties in construction related to possible effects of this linear have yet been encountered.

Conclusion

Therefore, what can we conclude from these examples and the previous discussion? First of all, linear features from all images can reflect potential areas of ground control problems in underground mines, but this certainly is not true in every case. Second, verification of linear features must be made using ground observations. Third, potential ground stability problems associated with linears should be

considered in light of local geologic conditions and predominant stresses. Fourth, until encountered underground, the actual effect of the linear-related structure is unknown. Finally, fifth, the uncertainty in linear interpretation and variability of geologic conditions preclude establishment of blanket requirements for extraordinary roof control measures near linear features.

Certainly, it would be imprudent to ignore the information provided from the remote sensing imagery and its potential utility to improve mine safety and production. However, it would be equally imprudent to assume that every linear feature denotes the presence of a hazardous structure where linear-related structures are assumed to intersect the mine plan.

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Rinkenberger, R. K., 1977, "Application of Remote Sensing for Evaluating Ground Stability in Mining Operations" paper presented at 43rd Annual Meeting of the American Society of Photogrammetry, Feb. 27 - March 5, 1977, Washington, D.C.

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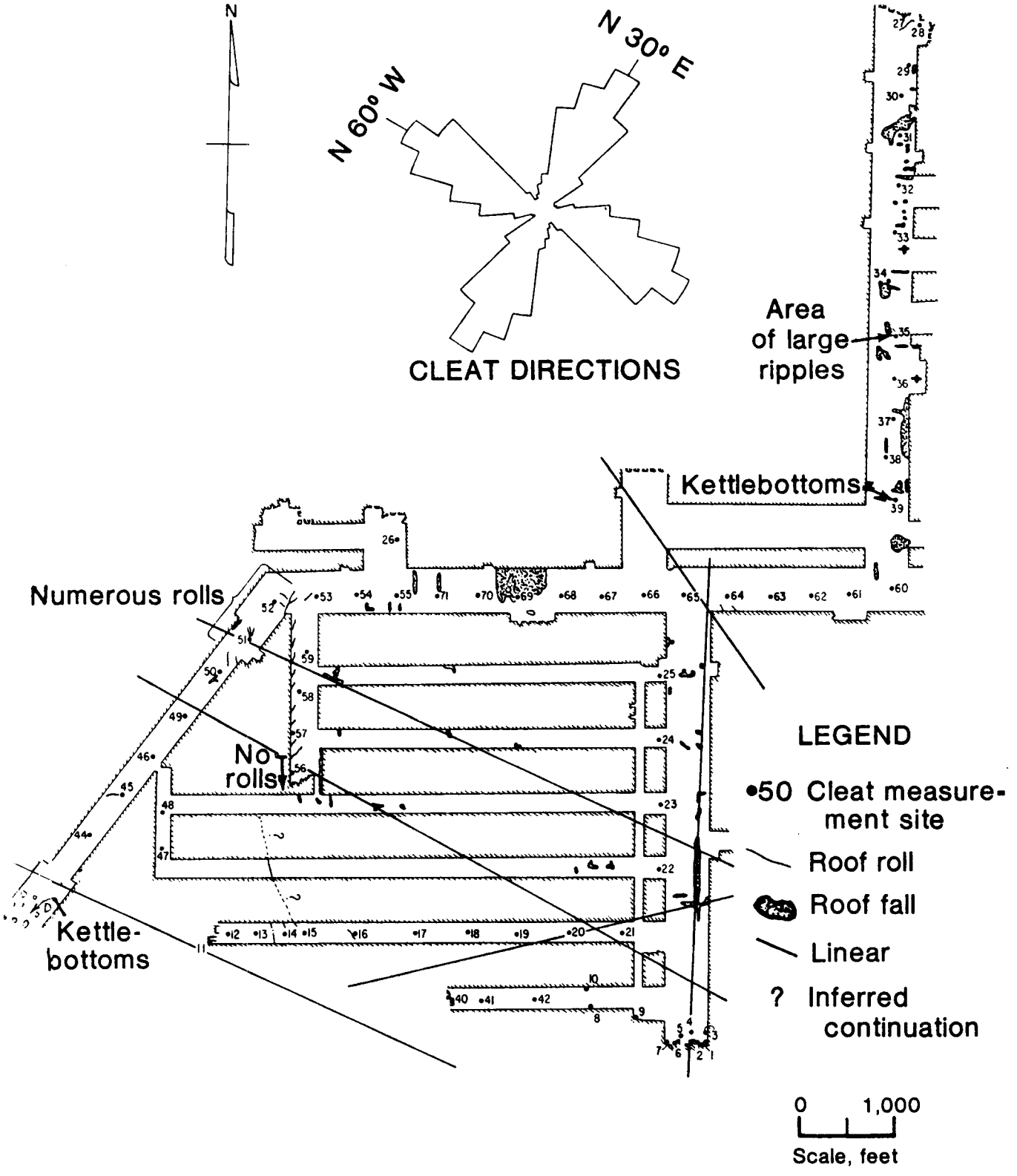

FIGURE 1 Mine map showing all observed geologic features, roof falls and linears. (from USBM RI 8660 p6,J.H. Jansky and P.W. Jeran, 1982)

Figure 2 Major Fault Zones near the Emery Coal Field

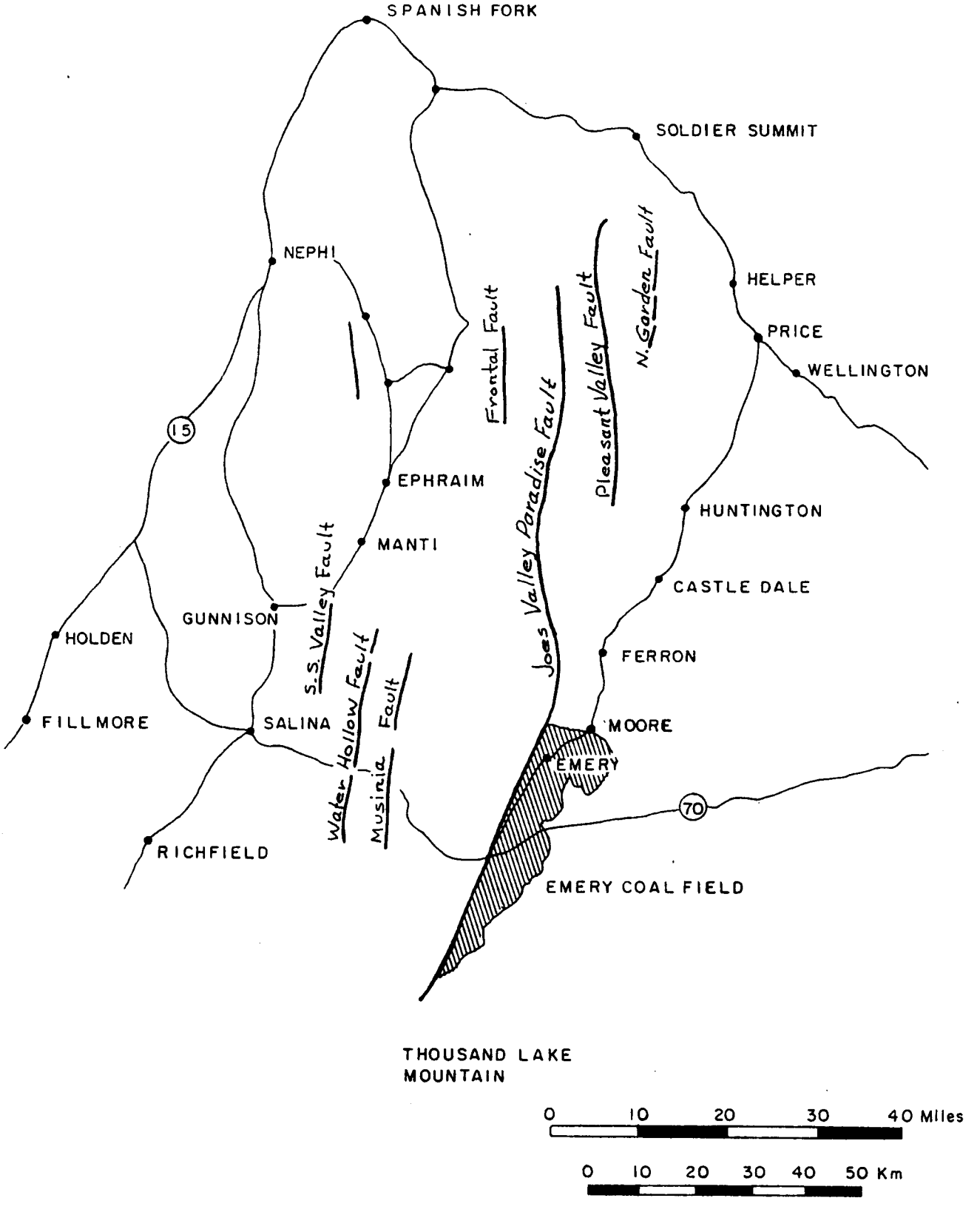

Figure 3 Landsat Imagery Interpretation of Lineaments Showing Major Fault Zones

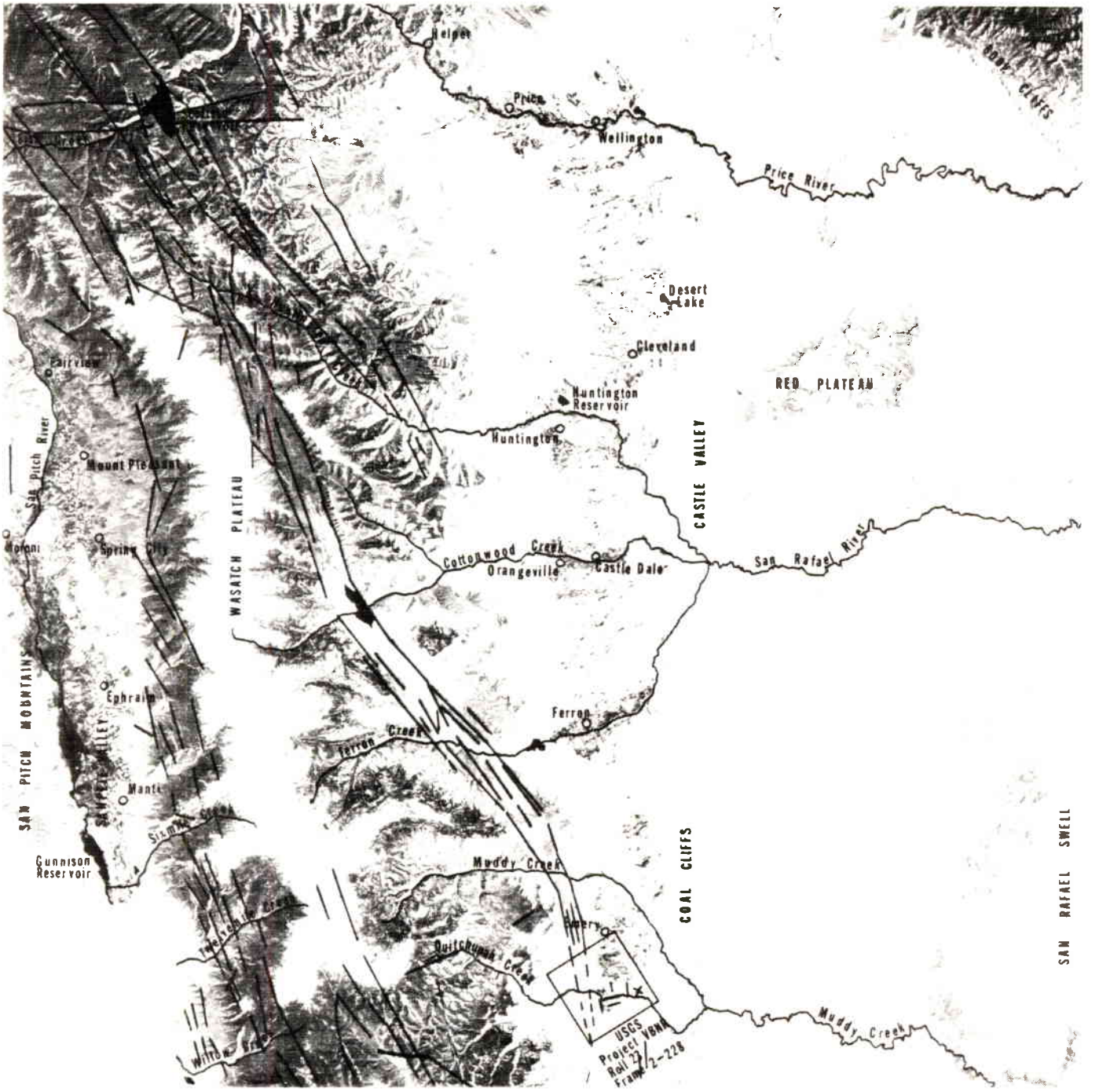

Figure 4 Skylab Photo Interpretation of Lineaments Showing Major Fault Zones

Figure 5 Aircraft Photo Interpretation of Lineaments over the Mine

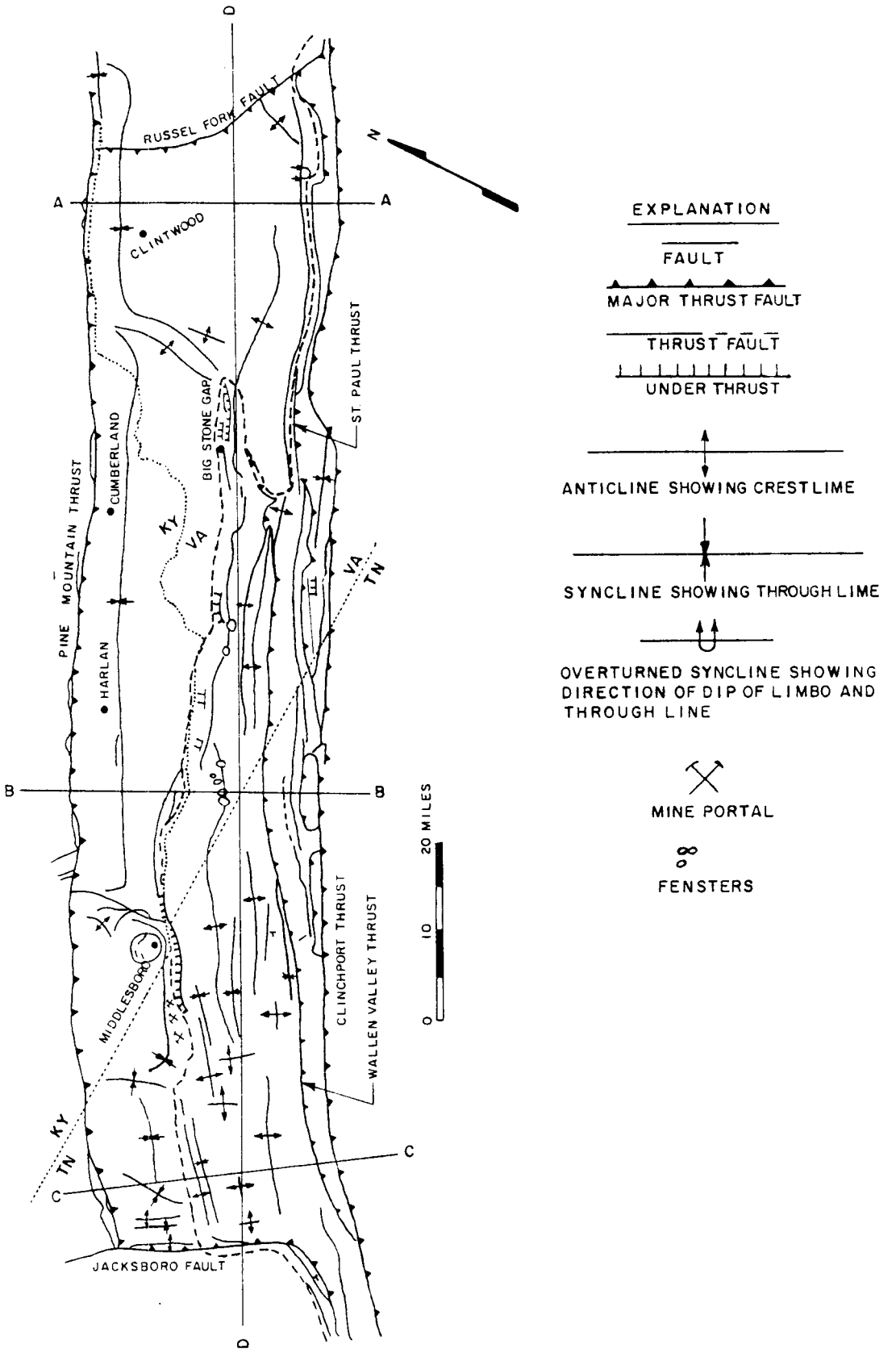

Figure 6 Structure Map of the Pine Mountain Thrust Plate (Harris 1979)

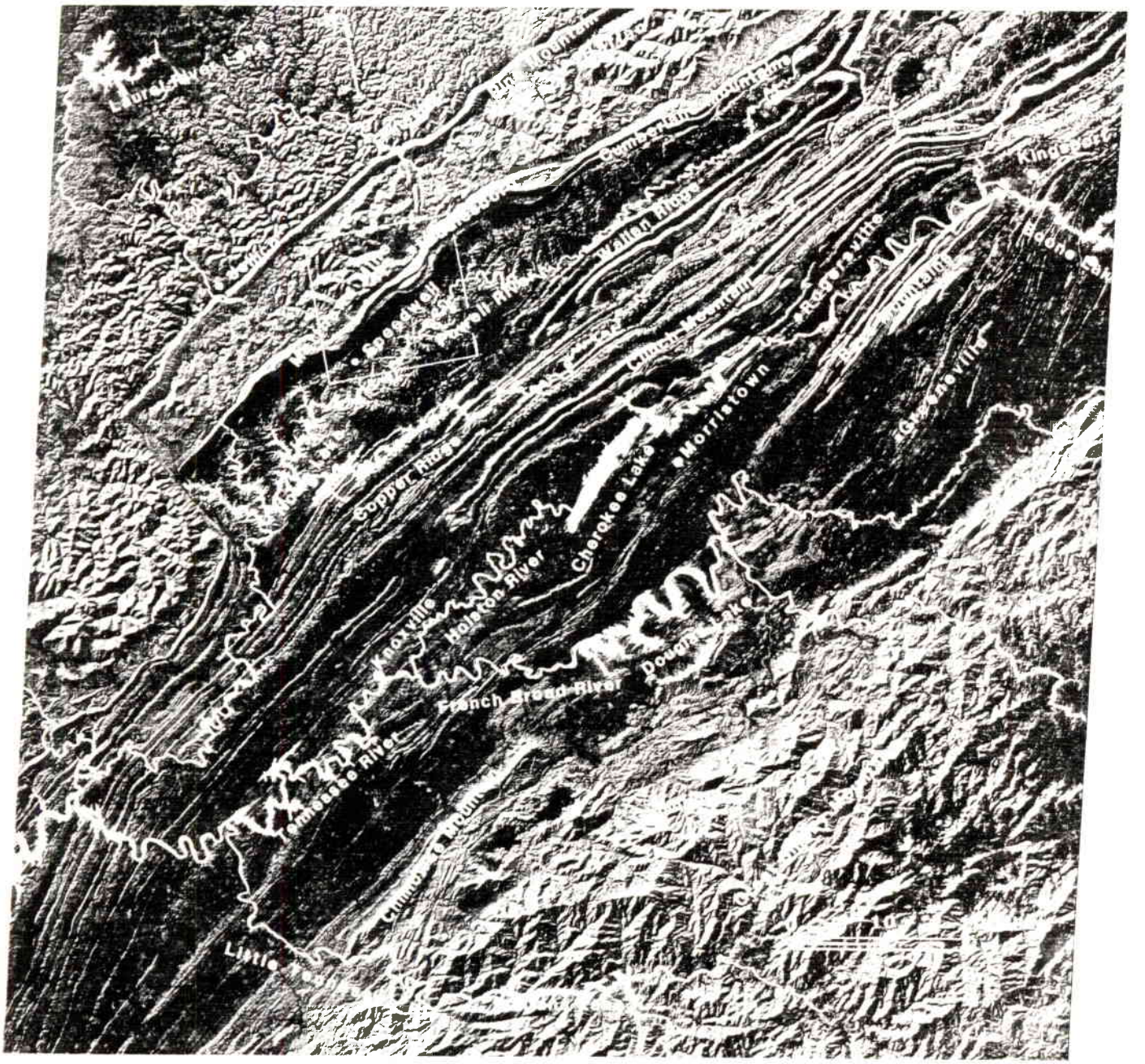

Figure 7 Geographic Index for the Landsat Imagery

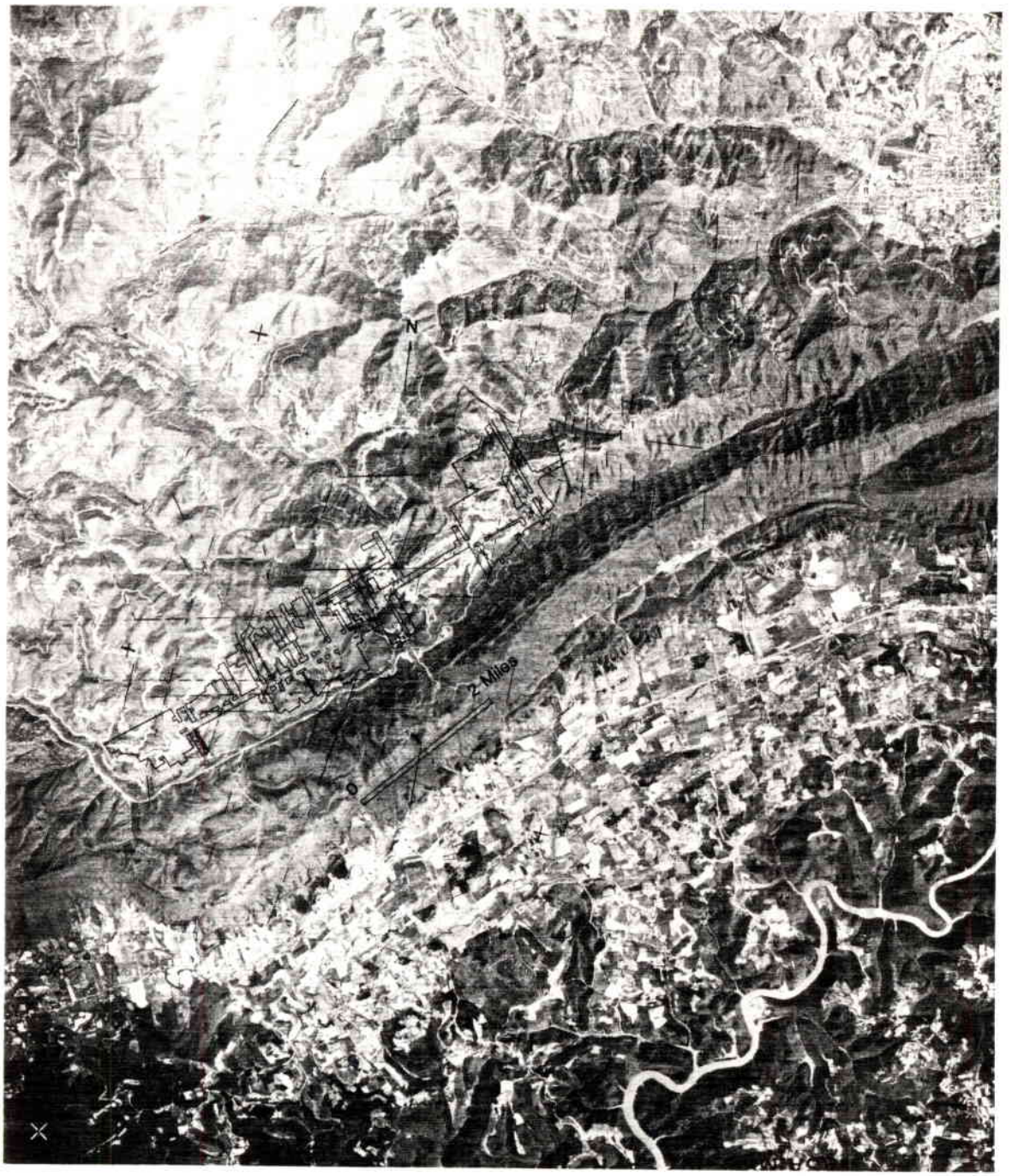

Figure 8 Lineaments Observed on the High Altitude Photo

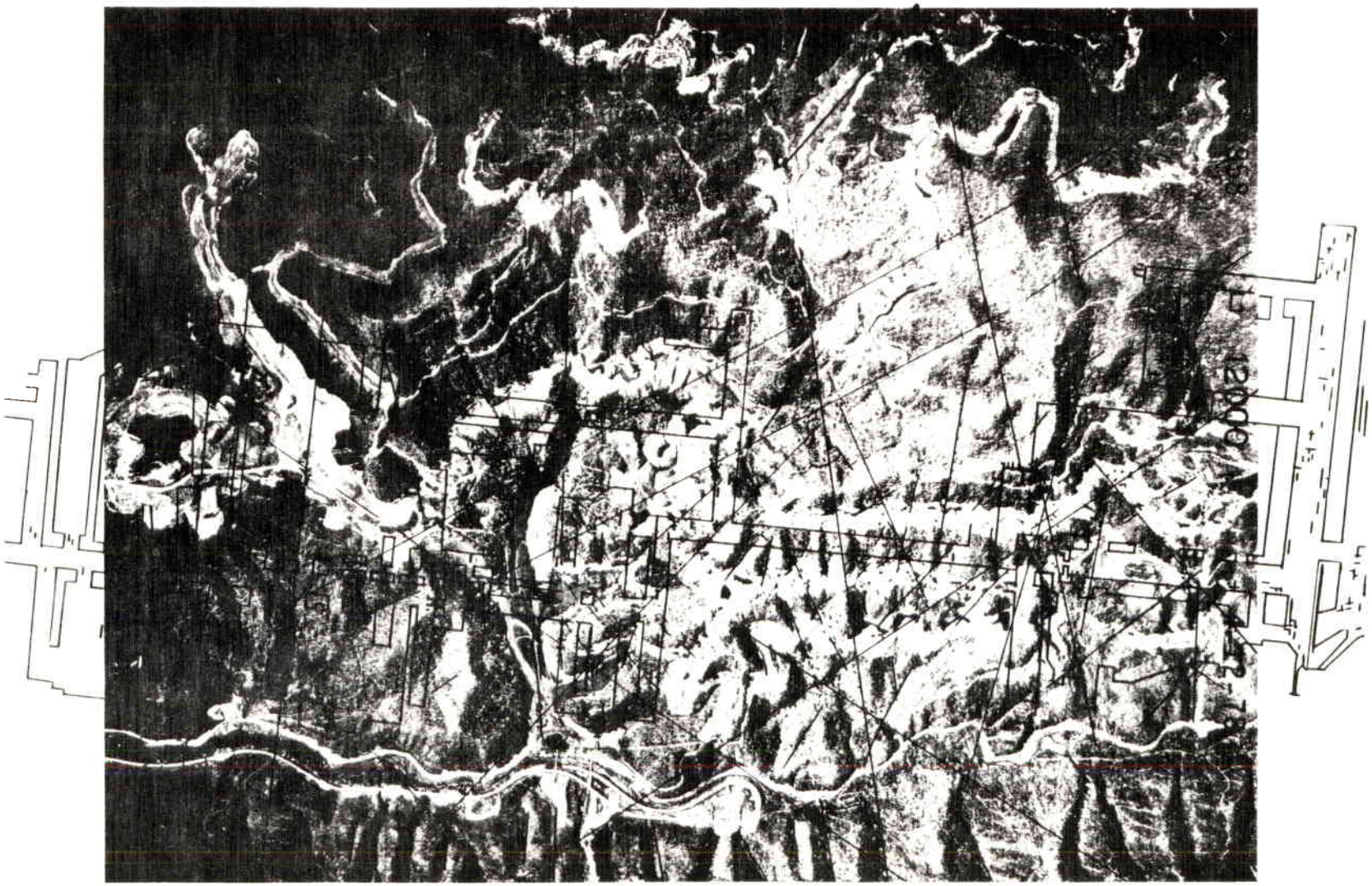

Figure 9 Lineaments Over Mine B

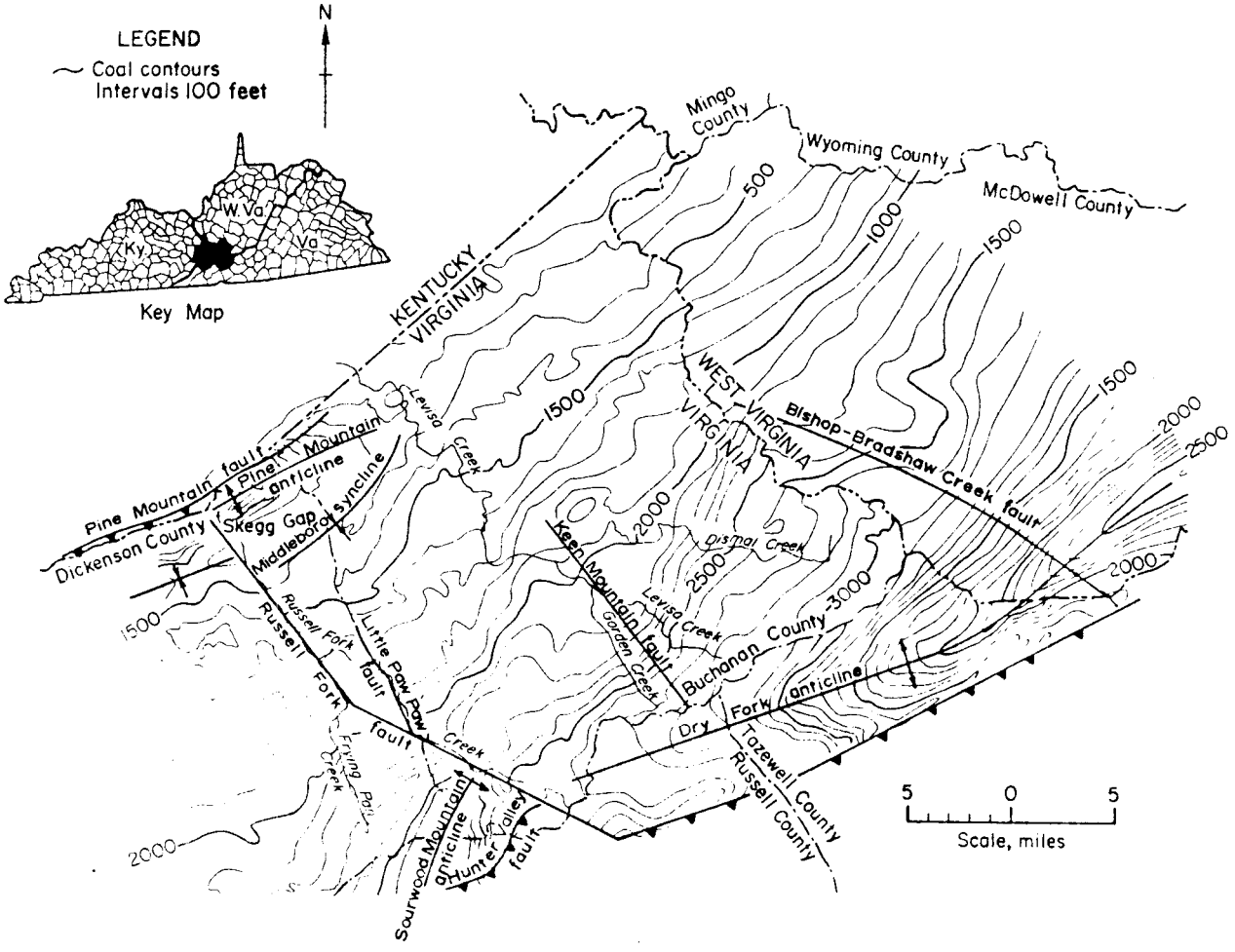

FIGURE 10 Shallow geologic structure contoured on Splashdam coalbed. Adapted from geologic map of Buchanan County, VA, supplied by Virginia Geologic Survey. (from USBM RI 7869 p 13, 1974)

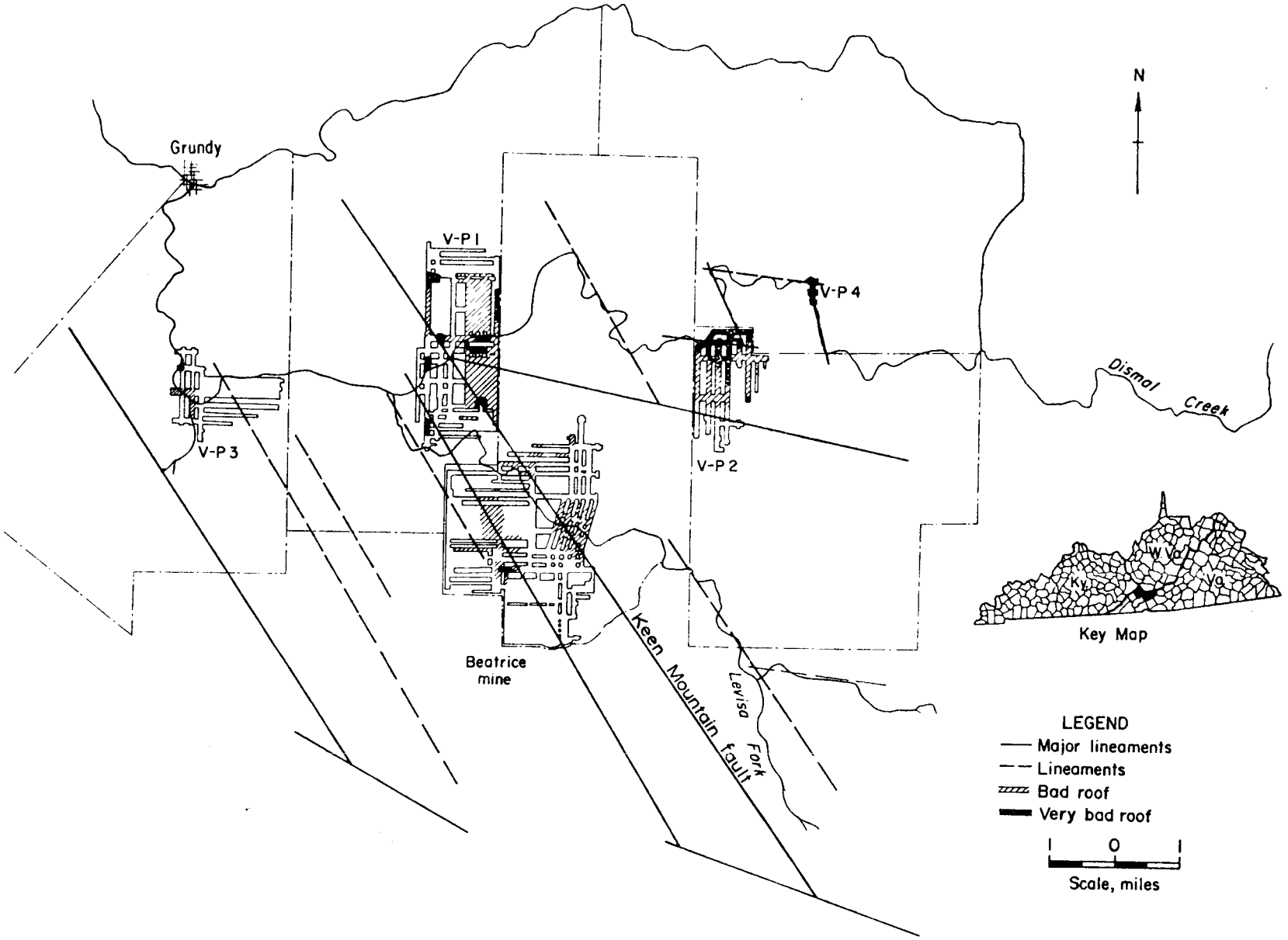

Figure 11 Map showing relation of areas of bad roof in mines to fractured zones and faults interpreted by lineaments in SLAR imagery Mine data supplied by Island Creek Coal Co. (from USBM RI 7869 p 26 1974)

LITHOLOGY AND STRATIGRAPHY OF
GEOCHEMICALLY TESTED INTERVALS

Hole	Depth Interval (Ft.)	Lithology[1]	Stratigraphy[2]
FC 142	112.0 - 120.6	SH and CO	UI roof
	127.3 - 132.8	SH	UI - LIO parting
	144.9 - 148.0	SH	LIO floor
FC 280B	421.0 - 431.0	SS	J roof
FC 338	736.0 - 746.0	SS	J roof
	766.0 - 776.0	SH and ST	LIO floor
FC 340	680.0 - 690.0	ST and SH	J roof
	717.4 - 730.0	SS, ST, and SH	LIO floor
FC 362	30.0 - 65.3	SH	Bluegate SH Mbr.
FC 363	20.0 - 22.0	CL	IJ Overburden
	22.0 - 30.0	SS	IJ Overburden
	30.0 - 38.0	SS	IJ Overburden
	38.0 - 41.3	SS	IJ Overburden
	41.3 - 100.0	SS	J roof
	126.6 - 133.0	CL and SH	LIO floor
FC 365	20.0 - 52.0	SS	IJ Overburden
	58.6 - 71.8	SH	IJ Overburden
FC 454	831.0 - 835.0	SS	LI1 - LI5 parting
	838.0 - 840.0	SH	LI5 floor
FC 459	198.0 - 206.0	SH	UI - LI1 parting
FC 460B	129.8 - 136.5	SH	UI - LIO parting
	150.0 - 158.0	SH	LIO floor
FC 468	520.0 - 528.0	BO, CO, SH, and SS	K roof
	533.4 - 536.0	SH	K floor
	536.0 - 546.0	SS and SH	K - J parting
FC 473	360.0 - 367.2	SS and SH	J roof
	387.0 - 390.0	BO and SH	LIO floor
FC 480B	550.0 - 556.0	BO, CO, SH, and SS	J - UI parting
	556.0 - 560.5	SH	UI roof
	566.5 - 570.0	SH	UI - LIO parting
FC 484	620.0 - 630.0	SH and SS	UI - LIO parting
FC 486	260.2 - 270.0	SH	LI1 roof
	280.0 - 288.0	SH	LI5 floor

(continued)

Hole	Depth Interval (Ft.)	Lithology[1]	Stratigraphy[2]
FC 487	550.0 - 560.8	SH	LI1 roof
	569.0 - 570.0	BO	LI5 floor
FC 488	580.0 - 583.0	BO	J
	583.0 - 593.0	SH	J - LI0 parting
	593.0 - 600.0	SH	LI0 roof
FC 490	230.0 - 242.8	CO, PY, SH and SS	LI1 roof
	252.0 - 260.0	SH and SS	LI5 floor
FC 492	390.0 - 401.2	BO, CO and SH	UI roof
	405.5 - 407.9	SH	UI floor
FC 499	240.0 - 243.0	SS	LI0 floor
FC 500	312.0 - 332.0	CO, SS, and SH	UI roof
	361.0 - 376.0	SH	LI5 floor
FC 501	320.0 - 330.0	SS	J roof
FC 505	280.0 - 290.0	SH	UI roof
FC 536	0.0 - 110.0	SS	IJ Overburden

[1] Lithologic abbreviations are as follows: ;BO, Bone; CL, Clay; CO, Coal; PY, Pyrite; SH, Shale; SS, Sandstone, and, ST, Siltstone

[2] All depth intervals are for Ferron SS Member of Mancos Shale Fm., except where otherwise noted.

Capital letters refer to coal seam designations (see text and explanation of drill log codings).

LITHOLOGIC LOGS OF EXPLORATION DRILL HOLES

USED TO PREPARE CROSS-SECTIONS

EXPLANATION OF DRILL LOG CODES

Lithology Code

BØ	BONE
BR	BRECCIA
BU	BURN
CA	CALCITE
CH	CHERT
CL	CLAY
CN	CONGLOMERATE
CØ	COAL
CS	CLAYSTONE
DØ	DOLOMITE
FU	FUSAIN
GD	GLACIAL DRIFT
GR	GRAVEL
GY	GYPSUM
LS	LIMESTONE
MD	MUDSTONE
MU	MUD
ØB	OVERBURDEN
NH	NIGGER HEAD
PY	PYRITE
RA	RIVER ALLUVIUM
SD	SIDERITE
SG	SAND AND GRAVEL
SH	SHALE
SL	SLATE
SM	SURFACE MATERIAL
SN	SAND
SP	SOAPSTONE
SS	SANDSTONE
ST	SILTSTONE
SU	SULFUR
TA	TALUS

Characteristics

BLK	Black
BLU	Blue or Bluish
BKN	Broken
BNY	Bony
BRN	Brown
BRT	Bright
CAS	Calcareous
CGR	Coarse Grain
CHY	Cherty
CLE	Coal Lenses
CLS	Clay Streaks
CLY	Clayey
CØI	Coal Inclusions
CØL	Coaly
CØP	Coal Parting
CØS	Coal Streaks
CØV	Coal Veinlets
CRB	Carbonaceous
CSE	Coal Seams
DRK	Dark
DØL	Dolomite
DUL	Dull
FIS	Fissile
FGR	Fine Grained
FRB	Friable
FRK	Fractures
FSL	Fossiliferous
FUS	Fusain
GRN	Green
GRY	Gray
CYP	Gypsum
HBD	Hard Band
MLE	Mud Lenses
HRD	Hard
LAM	Laminated
LIM	Limey
HRD	Hard
LIT	Light
LSS	LS Seams
MED	Medium
MGR	Medium Grained
MIC	Micaceous
MØT	Mottled
NØD	Nodules
ØLV	Olive
PTG	Parting
PUR	Purplish
PYS	Pyrite Streaks
PYT	Pyritic
QTZ	Quartzitic
REC	Recemented
RED	Red
RES	Resinous
SDR	Siderite Concr.
SDY	Sandy
SFT	Soft
SHL	SH Laminations
SHS	SH Streaks
SHY	Shaly
SIL	Siliceous
SLK	Slickensided
SLT	Salty
SLY	Silty
SSB	Sandstone Bands
SSE	SS Seams
SSS	Sandstone Streaks
STK	Streak
SUL	Sulfur
TAN	Tan
THN	Thin
VER	Vertical
VRY	Very
WEA	Weathered
WHT	White
YEL	Yellow

Seam Code

TF	Top of Ferron SS
M L K J I G D C A	Major coal seams of the Ferron SS (where shown, preceding letters U and I refer to upper and lower splits, respectively).

Correlation

0 - indicates mainbed of major coal seam

1 to 5 - indicates split of major coal seam

SEQ NO = 1 DRILL HOLE NO = FC 1 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 32

SECTION CODE = H1 SURFACE ELEV. = 5969.30 HOW DET. = 6

N-COORD = 194100 E-COORD = 2067750 SOURCE = 2 LOCATION = 2

THK CORED = 480.50 THK N-CORED = 110.00 USGS = WALKER FLAT SZE.CD. = 1

SEQ NO. = 2 DRILL HOLE NO = FC 1 FORMAT = B PROPERTY OR FARM = DRILLER = WILKEY J

DRILL CONTR = MOTT DATE DRILLED = 0163

TWP OR PLACE = EMERY COMMENTS = CEMENT

SEQ NO.	DRILL HOLE NUMBER		FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC	1	C	.00	110.00	110.00	SM			0	
4	FC	1	C	110.00	112.00	2.00	SH	DRK		0	
5	FC	1	C	112.00	116.25	4.25	SH	DRK		0	
6	FC	1	C	116.25	116.67	.42	SS	GRY	TF	0	
7	FC	1	C	116.67	128.92	12.25	SS	GRY COS		0	
8	FC	1	C	128.92	129.67	.75	SS	WHT COS		0	
9	FC	1	C	129.67	163.50	33.83	SS	GRY		0	
10	FC	1	C	163.50	163.92	.42	CO			0	
11	FC	1	C	163.92	164.58	.66	BO			0	
12	FC	1	C	164.58	165.00	.42	CO			0	
13	FC	1	C	165.00	166.58	1.58	SH	BNY DRK		0	
14	FC	1	C	166.58	173.17	6.59	SS	SDY		0	
15	FC	1	C	173.17	215.42	42.25	SS	GRY		0	
16	FC	1	C	215.42	218.08	2.66	SS	GRY COS		0	
17	FC	1	C	218.08	221.67	3.59	SH	DRK SDY		0	
18	FC	1	C	221.67	222.00	.33	SS	DRK BNY		0	
19	FC	1	C	222.00	222.83	.83	CO		J	0	
21	FC	1	C	222.83	224.17	1.34	SH	DRK BNY		0	
22	FC	1	C	224.17	225.83	1.66	CO		J	3	LOCAL
23	FC	1	C	225.83	226.00	.17	SH	DRK		0	
24	FC	1	C	226.00	228.00	2.00	CL	SDY LIT		0	
25	FC	1	C	228.00	228.42	.42	CL	LIT		0	
26	FC	1	C	228.42	234.83	6.41	CO		UI	0	
27	FC	1	C	234.83	235.21	.38	CO	BNY		0	
28	FC	1	C	235.21	237.75	2.54	CO		LI	0	
29	FC	1	C	237.75	237.85	.10	CO	SDY	LI	0	
30	FC	1	C	237.85	239.31	1.46	CO		LI	0	
31	FC	1	C	239.31	239.39	.08	SH	DRK	LI	0	
32	FC	1	C	239.39	249.67	10.28	CO		LI	0	
33	FC	1	C	249.67	250.92	1.25	SH	DRK CLY		0	
34	FC	1	C	250.92	252.92	2.00	SH	GRY		0	
35	FC	1	C	252.92	254.00	1.08	SS	GRY		0	
36	FC	1	C	254.00	257.17	3.17	SH	DRK		0	
37	FC	1	C	257.17	263.33	6.16	SS	GRY		0	

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
38	FC 1	C	263.33	264.42	1.09	SH	DRK SDY		0	
39	FC 1	C	264.42	264.50	.08	CO			0	
40	FC 1	C	264.50	265.58	1.08	SH	SDY DRK		0	
41	FC 1	C	265.58	271.92	6.34	SS	GRY FGR		0	
42	FC 1	C	271.92	273.54	1.62	SH	SDY DRK		0	
43	FC 1	C	273.54	284.67	11.13	SS	GRY		0	
44	FC 1	C	284.67	285.75	1.08	SH	SDY DRK		0	
45	FC 1	C	285.75	289.33	3.58	SH	DRK		0	
46	FC 1	C	289.33	290.42	1.09	ST	GRY DRK		0	
47	FC 1	C	290.42	292.92	2.50	SH	DRK GRY		0	
48	FC 1	C	292.92	297.83	4.91	CO		G	0	
49	FC 1	C	297.83	301.08	3.25	SH	DRK GRY		0	
50	FC 1	C	301.08	316.58	15.50	SS	LIT GRY SHS		0	
51	FC 1	C	316.58	316.83	.25	SH	GRY DRK		0	
52	FC 1	C	316.83	326.67	9.84	SS	LIT GRY		0	
53	FC 1	C	326.67	327.83	1.16	SH	GRY DRK		0	
54	FC 1	C	327.83	339.75	11.92	SS	GRY LIT		0	
55	FC 1	C	339.75	340.17	.42	BO			0	
56	FC 1	C	340.17	340.50	.33	CO			0	
57	FC 1	C	340.50	343.00	2.50	BO			0	
58	FC 1	C	343.00	346.67	3.67	CO	PYT	D	0	
59	FC 1	C	346.67	347.08	.41	BO			0	
60	FC 1	C	347.08	347.50	.42	SS	LIT GRY		0	
61	FC 1	C	347.50	349.00	1.50	SH	BLK CRB		0	
62	FC 1	C	349.00	350.08	1.08	SS	GRY		0	
63	FC 1	C	350.08	350.25	.17	SH	BNY DRK		0	
64	FC 1	C	350.25	352.33	2.08	CO		C	0	
65	FC 1	C	352.33	352.50	.17	BO		C	0	
66	FC 1	C	352.50	355.17	2.67	CO		C	0	
67	FC 1	C	355.17	355.92	.75	BO		C	0	
68	FC 1	C	655.92	657.50	1.58	CO		C	0	
69	FC 1	C	357.50	357.75	.25	SH	BLK CRB		0	
70	FC 1	C	357.75	372.00	14.25	SH	DRK GRY		0	
71	FC 1	C	372.00	377.83	5.83	SS	LIT GRY		0	
72	FC 1	C	377.83	379.67	1.84	SS	DRK GRY		0	
73	FC 1	C	379.67	381.67	2.00	SH	GRY DRK SDY		0	
74	FC 1	C	381.67	383.25	1.58	SH	DRK GRY		0	
75	FC 1	C	383.25	383.58	.33	CO			0	
76	FC 1	C	383.58	387.42	3.84	SH	DRK CAS		0	
77	FC 1	C	387.42	394.42	7.00	SH	DRK GRY BLK FSL		0	
78	FC 1	C	394.42	418.25	23.83	SH	BLK SDY		0	
79	FC 1	C	418.25	425.58	7.33	SH	LIT GRY DRK SDY		0	
80	FC 1	C	425.58	426.17	.59	SH	DRK GRY		0	
81	FC 1	C	426.17	426.83	.66	SS	LIT GRY		0	
82	FC 1	C	426.83	429.83	3.00	SH	DRK GRY		0	
83	FC 1	C	429.83	430.75	.92	SS	LIT GRY		0	
84	FC 1	C	430.75	508.42	77.67	SS	LIT DRK		0	
85	FC 1	C	508.42	513.50	5.08	SS			0	
86	FC 1	C	513.50	528.50	15.00	SS	LIT GRY		0	
87	FC 1	C	528.50	540.17	11.67	SH	DRK SDY		0	
88	FC 1	C	540.17	590.50	50.33	SH	DRK BH		0	

1	FC	1	D	I	1	228.33	232.33	85	2.4	39.1	48.3	10.2	1.58	12630	.00	F
2	FC	1	D	I	1	228.33	232.33	82	.0	40.0	49.5	10.5	1.62	12940	.00	F
3	FC	1	D	I	1	228.33	232.33	83	.0	44.7	55.3	.0	.00	14460	.00	F
4	FC	1	D	I	2	232.33	236.33	85	2.3	39.8	47.3	10.6	1.40	12540	.00	F
5	FC	1	D	I	2	232.33	236.33	82	.0	40.7	48.4	10.9	1.43	12840	.00	F
6	FC	1	D	I	2	232.33	236.33	83	.0	45.7	54.3	.0	.00	14410	.00	F
7	FC	1	D	I	3	236.33	240.33	85	2.6	40.7	50.5	6.2	1.19	13220	.00	F
8	FC	1	D	I	3	236.33	240.33	82	.0	41.8	51.8	6.4	1.22	13570	.00	F
9	FC	1	D	I	3	236.33	240.33	83	.0	44.7	55.3	.0	.00	14500	.00	F
10	FC	1	D	I	4	240.33	244.33	85	2.3	40.2	50.3	7.2	.82	13170	.00	F
11	FC	1	D	I	4	240.33	244.33	82	.0	41.1	51.5	7.4	.84	13480	.00	F
12	FC	1	D	I	4	240.33	244.33	83	.0	44.4	55.6	.0	.00	14560	.00	F
13	FC	1	D	I	5	244.33	249.67	85	2.3	40.1	52.0	5.6	.50	13380	.00	F
14	FC	1	D	I	5	244.33	249.67	82	.0	41.1	53.2	5.7	.51	13690	.00	F
15	FC	1	D	I	5	244.33	249.67	83	.0	43.6	56.4	.0	.00	14520	.00	F
16	FC	1	D	G	6	292.92	297.83	85	2.5	40.8	49.7	7.0	1.33	13150	.00	F
17	FC	1	D	G	6	292.92	297.83	82	.0	41.8	51.0	7.2	1.36	13490	.00	F
18	FC	1	D	G	6	292.92	297.83	83	.0	45.0	55.0	.0	.00	14540	.00	F
19	FC	1	D	D	7	343.42	347.08	85	2.3	38.9	46.8	12.0	1.27	12350	.00	F
20	FC	1	D	D	7	343.42	347.08	82	.0	39.8	47.9	12.3	1.30	12640	.00	F
21	FC	1	D	D	7	343.42	347.08	83	.0	45.4	54.6	.0	.00	14410	.00	F
22	FC	1	D	C	8	350.08	357.71	85	2.5	39.6	48.3	9.6	.60	12690	.00	F
23	FC	1	D	C	8	350.08	357.71	82	.0	40.6	49.5	9.9	.62	13020	.00	F
24	FC	1	D	C	8	350.08	357.71	83	.0	45.1	54.9	.0	.00	14450	.00	F

				SEAM CODE	SAMP NO	ULTIMATE ANALYSIS C	H2	N	CL	O2	FSI	GRINDABILITY	ASH SOFTENING TEMP. A	B	C	D
1	FC	1	E	I	1	.0	.0	.0	.0	.0	.0	.0	2110	0	0	0
2	FC	1	E	I	2	.0	.0	.0	.0	.0	.0	.0	2330	0	0	0
3	FC	1	E	I	3	.0	.0	.0	.0	.0	.0	.0	2050	0	0	0
4	FC	1	E	I	4	.0	.0	.0	.0	.0	.0	.0	2100	0	0	0
5	FC	1	E	I	5	.0	.0	.0	.0	.0	.0	.0	2140	0	0	0
6	FC	1	E	G	6	.0	.0	.0	.0	.0	.0	.0	2230	0	0	0
7	FC	1	E	D	7	.0	.0	.0	.0	.0	.0	.0	2330	0	0	0
8	FC	1	E	C	8	.0	.0	.0	.0	.0	.0	.0	2300	0	0	0

FLOAT SINK DATA

				SEAM CODE	SAMP NO	SP GR	TYPE CODE	% WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE
1	FC	1	G	I	1	000130I	CF	1770	.00	4.20	1.42	0	0000
2	FC	1	G	I	1	000140I	CF	7310	.00	7.50	1.50	0	0000
3	FC	1	G	I	1	000160I	CF	9190	.00	10.60	1.60	0	0000
4	FC	1	G	I	1	000160I	CF	0810	.00	49.50	8.52	0	0000
5	FC	1	G	I	1	RAW000	CF	0000	.00	13.80	2.16	0	0000
6	FC	1	G	I	2	000130I	CF	2720	.00	4.00	1.36	0	0000
7	FC	1	G	I	2	000140I	CF	7650	.00	6.90	1.46	0	0000
8	FC	1	G	I	2	000160I	CF	9700	.00	10.90	1.43	0	0000
9	FC	1	G	I	2	000160I	DS	0300	.00	34.80	5.20	0	0000
10	FC	1	G	I	2	RAW000	CF	0000	.00	11.60	1.54	0	0000
11	FC	1	G	I	3	000130I	CF	4970	.00	3.20	.95	0	0000
12	FC	1	G	I	3	000140I	CF	8440	.00	5.00	1.06	0	0000
13	FC	1	G	I	3	000160I	CF	9430	.00	6.40	1.20	0	0000

								FLOAT SINK DATA					
				SEAM CODE	SAMP NO	SP GR	TYPE CODE	% WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE
14	FC	1	G	I	3	000160	DS	0570	.00	52.20	9.14	0	0000
15	FC	1	G	I	3	RAW000	CF	0000	.00	9.00	1.65	0	0000
16	FC	1	G	I	4	000130	CF	2480	.00	3.40	.69	0	0000
17	FC	1	G	I	4	000140	CF	8960	.00	6.30	.75	0	0000
18	FC	1	G	I	4	000160	CF	9860	.00	7.40	.81	0	0000
19	FC	1	G	I	4	000160	DS	0140	.00	34.30	9.11	0	0000
20	FC	1	G	I	4	RAW000	CF	0000	.00	7.80	.93	0	0000
21	FC	1	G	I	5	000130	CF	4970	.00	3.30	.55	0	0000
22	FC	1	G	I	5	000140	CF	9680	.00	5.30	.51	0	0000
23	FC	1	G	I	5	000160	CF	9980	.00	5.60	.51	0	0000
24	FC	1	G	I	5	000160	DS	0020	.00	39.50	.60	0	0000
25	FC	1	G	I	5	RAW000	CF	0000	.00	5.70	.51	0	0000
26	FC	1	G	G	6	000130	CF	4950	.00	3.80	.97	0	0000
27	FC	1	G	G	6	000140	CF	8990	.00	5.90	1.20	0	0000
28	FC	1	G	G	6	000160	CF	9710	.00	7.10	1.41	0	0000
29	FC	1	G	G	6	000160	DS	0290	.00	40.90	8.25	0	0000
30	FC	1	G	G	6	RAW000	CF	0000	.00	8.10	1.61	0	0000
31	FC	1	G	D	7	000130	CF	1680	.00	4.90	1.23	0	0000
32	FC	1	G	D	7	000140	CF	6430	.00	8.60	1.22	0	0000
33	FC	1	G	D	7	000160	CF	8410	.00	12.50	1.33	0	0000
34	FC	1	G	D	7	000160	DS	1590	.00	43.70	6.04	0	0000
35	FC	1	G	D	7	RAW000	CF	0000	.00	17.40	2.08	0	0000
36	FC	1	G	C	8	000130	CF	3020	.00	4.70	.64	0	0000
37	FC	1	G	C	8	000140	CF	6510	.00	7.40	.63	0	0000
38	FC	1	G	C	8	000160	CF	7730	.00	10.00	.61	0	0000
39	FC	1	G	C	8	000160	DS	2270	.00	55.70	.26	0	0000
40	FC	1	G	C	8	RAW000	CF	0000	.00	20.30	.53	0	0000

SEQ NO = 1 DRILL HOLE NO = FC 3 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 30

SECTION CODE = H1 SURFACE ELEV. = 6075.40 HOW DET. = 6

N-COORD = 199170 E-COORD = 2062690 SOURCE = 2 LOCATION = 2

THK CORED = 963.00 THK N-CORED = 66.00 USGS = EMERY WEST SZE.CD. = 1

SEQ NO. = 2 DRILL HOLE NO = FC 3 FORMAT = B PROPERTY OR FARM = DRILLER = WILKEY J

DRILL CONTR = MOTT DATE DRILLED = 0263

TWP OR PLACE = EMERY COMMENTS = CEMENT

SEQ NO.	DRILL HOLE NUMBER		FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC	3	C	.00	16.00	16.00	SM			0	
4	FC	3	C	16.00	66.00	50.00	SH	DRK MED HRD		0	
5	FC	3	C	66.00	85.00	19.00	SH	DRK FSL GRY		0	
6	FC	3	C	85.00	125.00	40.00	SH	DRK GRY		0	
7	FC	3	C	125.00	155.00	30.00	SH	DRK FSL GRY		0	
8	FC	3	C	155.00	255.00	100.00	SH	DRK GRY FSL		0	
9	FC	3	C	255.00	305.00	50.00	SH	DRK GRY		0	
10	FC	3	C	305.00	355.00	50.00	SH	DRK GRY		0	
11	FC	3	C	355.00	405.00	50.00	SH	FSL DRK GRY		0	
12	FC	3	C	405.00	455.00	50.00	SH	HRD DRK GRY		0	
13	FC	3	C	455.00	505.00	50.00	SH	DRK GRY HRD		0	
14	FC	3	C	505.00	635.33	130.33	SH	DRK GRY		0	
15	FC	3	C	635.33	645.58	10.25	SH	DRK GRY SDY	TF	0	
16	FC	3	C	645.58	645.83	.25	SH	DRK GRY SDY		0	
17	FC	3	C	645.83	647.75	1.92	SH	DRK GRY		0	
18	FC	3	C	647.75	653.33	5.58	CO		K	0	
19	FC	3	C	653.33	653.71	.38	SS			0	
20	FC	3	C	653.71	654.37	.66	SH	DRK GRY		0	
21	FC	3	C	654.37	655.83	1.46	SS	LIT GRY MGR		0	
22	FC	3	C	655.83	656.33	.50	SH	GRY DRK		0	
23	FC	3	C	656.33	659.33	3.00	SH			0	PLUGGED
24	FC	3	C	659.33	660.50	1.17	SH	DRK GRY		0	
25	FC	3	C	660.50	667.67	7.17	CL	DRK SDY		0	
26	FC	3	C	667.67	670.50	2.83	SH	DRK CRB		0	
27	FC	3	C	670.50	673.25	2.75	SS	SH		0	
28	FC	3	C	673.25	674.50	1.25	SH	DRK		0	
29	FC	3	C	674.50	675.00	.50	SS	LIT GRY FGR		0	
30	FC	3	C	675.00	676.75	1.75	SH	DRK GRY SDY		0	
31	FC	3	C	676.75	686.92	10.17	SS	LIT GRY MGR		0	
32	FC	3	C	686.92	687.75	.83	SH	DRK		0	
33	FC	3	C	687.75	696.33	8.58	SS	LIT GRY MGR		0	
34	FC	3	C	696.33	703.50	7.17	SS	LIT GRY MGR CGR		0	
35	FC	3	C	703.50	703.79	.29	SS	SHY		0	
36	FC	3	C	703.79	704.04	.25	SS	GRY MGR		0	

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
37	FC 3	C	704.04	704.37	.33	SH	DRK		0	
38	FC 3	C	704.37	704.67	.30	SS	LIT GRY CGR		0	
39	FC 3	C	704.67	704.79	.12	SH	DRK		0	
40	FC 3	C	704.79	710.96	6.17	SS	GRY MGR FGR		0	
41	FC 3	C	710.96	712.04	1.08	SH	CRB		0	
42	FC 3	C	712.04	712.04	.00	CO	EXH	J	0	
43	FC 3	C	712.04	712.58	.54	SS	SHY		0	
44	FC 3	C	712.58	714.33	1.75	SS	GRY MGR		0	
45	FC 3	C	714.33	719.25	4.92	CO		UI	0	
46	FC 3	C	719.25	724.17	4.92	CO		LI	1	
47	FC 3	C	724.17	725.08	.91	SH	CRB		0	
48	FC 3	C	725.08	730.33	5.25	SS	SHY		0	
49	FC 3	C	730.33	736.25	5.92	SS	LIT GRY FGR		0	
50	FC 3	C	736.25	756.25	20.00	SS	GRY		0	
51	FC 3	C	756.25	771.75	15.50	SS			0	
52	FC 3	C	771.75	773.92	2.17	CO		LI	5	
53	FC 3	C	773.92	776.25	2.33	SH	DRK		0	
54	FC 3	C	776.25	787.25	11.00	SH	GRY SDY		0	
55	FC 3	C	787.25	796.25	9.00	SS	LIT GRY		0	
56	FC 3	C	796.25	816.00	19.75	SS			0	
57	FC 3	C	816.00	825.00	9.00	SH	DRK		0	
58	FC 3	C	825.00	834.25	9.25	SH	LIT GRY SDY		0	
59	FC 3	C	834.25	836.25	2.00	SS	LIT GRY		0	
60	FC 3	C	836.25	836.83	.58	SS	LIT		0	
61	FC 3	C	836.83	837.92	1.09	SH	DRK		0	
62	FC 3	C	837.92	838.08	.16	CO		G	0	
63	FC 3	C	838.08	838.33	.25	SH	GRY	G	0	
64	FC 3	C	838.33	843.17	4.84	CO		G	0	
65	FC 3	C	843.17	843.67	.50	SH	DRK	G	0	
66	FC 3	C	843.67	844.67	1.00	CO		G	0	
67	FC 3	C	844.67	846.42	1.75	SH	DRK		0	
68	FC 3	C	846.42	848.25	1.83	SS	LIT GRY		0	
69	FC 3	C	848.25	850.25	2.00	SH	DRK SDY		0	
70	FC 3	C	850.25	854.25	4.00	SH	DRK		0	
71	FC 3	C	854.25	855.75	1.50	SS	DRK		0	
72	FC 3	C	855.75	857.75	2.00	SH	GRY		0	
73	FC 3	C	857.75	860.75	3.00	SH	DRK		0	
74	FC 3	C	860.75	868.92	8.17	SS	GRY MGR		0	
75	FC 3	C	868.92	870.00	1.08	SH	GRY		0	
76	FC 3	C	870.00	872.00	2.00	SH	GRY SDY		0	
77	FC 3	C	872.00	873.33	1.33	SH	DRK		0	
78	FC 3	C	873.33	875.92	2.59	CO		D	0	
79	FC 3	C	875.92	876.50	.58	SH	DRK		0	
80	FC 3	C	876.50	376.75	.25	SH			0	
81	FC 3	C	876.75	877.00	.25	SS	LIT GRY		0	
82	FC 3	C	877.00	878.67	1.67	CO		C	0	
83	FC 3	C	878.67	878.75	.08	BO		C	0	
84	FC 3	C	878.75	880.00	1.25	CO		C	0	
85	FC 3	C	880.00	880.08	.08	SS		C	0	
36	FC 3	C	880.08	881.00	.92	CO		C	0	
87	FC 3	C	881.00	881.25	.25	SH	DRK	C	0	

SEQ NO.	DRILL HOLE NUMBER		FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
88	FC	3	C	881.25	883.00	1.75	CO		C	0	
89	FC	3	C	883.00	886.00	3.00	SS	DRK LIT		0	
90	FC	3	C	886.00	890.00	4.00	SS	DRK		0	
91	FC	3	C	890.00	923.83	33.83	SS	LIT FGR		0	
92	FC	3	C	923.83	924.83	1.00	SH	SDY DRK		0	
93	FC	3	C	924.83	925.50	.67	CO			0	
94	FC	3	C	925.50	926.00	.50	BO			0	
95	FC	3	C	926.00	927.25	1.25	CO			0	
96	FC	3	C	927.25	928.92	1.67	CL			0	
97	FC	3	C	928.92	929.08	.16	SS	GRY		0	
98	FC	3	C	929.08	948.42	19.34	SS	FGR GRY		0	
99	FC	3	C	948.42	955.17	6.75	SH	GRY		0	
100	FC	3	C	955.17	955.75	.58	CO			0	
101	FC	3	C	955.75	957.08	1.33	SH	DRK		0	
102	FC	3	C	957.08	958.08	1.00	SS	GRY		0	
103	FC	3	C	958.08	960.00	1.92	SH	COL BNY		0	
104	FC	3	C	960.00	963.00	3.00	SS	DRK SDY		0	
105	FC	3	C	963.00	966.67	3.67	SS	DRK		0	
106	FC	3	C	966.67	968.83	2.16	CO		A	0	
107	FC	3	C	968.83	970.54	1.71	SH	DRK		0	
108	FC	3	C	970.54	972.96	2.42	SS	SHY		0	
109	FC	3	C	972.96	975.71	2.75	SS	LIT GRY MGR		0	
110	FC	3	C	975.71	976.50	.79	SS	SHY		0	
111	FC	3	C	976.50	982.58	6.08	SS	GRY MGR		0	
112	FC	3	C	982.58	986.42	3.84	SS	LIT GRY FGR		0	
113	FC	3	C	986.42	992.92	6.50	SS	FGR GRY		0	
114	FC	3	C	992.92	996.42	3.50	SS	LIT GRY MGR		0	
115	FC	3	C	996.42	1001.50	5.08	SS	LIT GRY MGR		0	
116	FC	3	C	1001.50	1010.50	9.00	SS	SHY		0	
117	FC	3	C	1010.50	1012.46	1.96	SH	DRK SDY		0	
118	FC	3	C	1012.46	1012.50	.04	SH	CRB		0	
119	FC	3	C	1012.50	1013.17	.67	SH	SDY		0	
120	FC	3	C	1013.17	1029.00	15.83	SS	DRK BH		0	

				SEAM CODE	SAMP NO	SAMPLE DEPTH FROM	SAMPLE DEPTH TO	ANALYSIS CODE	PROXIMATE ANALYSIS %MOIS	%VOL	%CARB	%ASH	%SUL	BTU	EQUIL. MOIST	F P
1	FC	3	D	J	1	647.75	653.33	85	2.7	43.0	46.1	8.2	2.41	12940	.00	F
2	FC	3	D	J	1	647.75	653.33	82	.0	44.2	47.4	8.4	2.48	13300	.00	F
3	FC	3	D	J	1	647.75	653.33	83	.0	48.3	51.7	.0	.00	14520	.00	F
4	FC	3	D	I	2	714.34	718.17	85	3.0	39.6	50.5	6.9	.43	13130	.00	F
5	FC	3	D	I	2	714.34	718.17	82	.0	40.8	52.1	7.1	.44	13540	.00	F
6	FC	3	D	I	2	714.34	718.17	83	.0	43.9	56.1	.0	.00	14570	.00	F
7	FC	3	D	I	3	718.17	724.17	85	2.5	39.4	49.7	8.4	.44	12840	.00	F
8	FC	3	D	I	3	718.17	724.17	82	.0	40.4	51.0	8.6	.45	13170	.00	F
9	FC	3	D	I	3	718.17	724.17	83	.0	44.2	55.8	.0	.00	14410	.00	F
10	FC	3	D	G	4	771.75	773.92	85	2.5	39.9	50.4	7.2	.86	13000	.00	F
11	FC	3	D	G	4	771.75	773.92	82	.0	40.9	51.7	7.4	.88	13330	.00	F
12	FC	3	D	G	4	771.75	773.92	83	.0	44.2	55.8	.0	.00	14440	.00	F
13	FC	3	D	CD	5	838.34	844.67	85	2.8	40.4	49.4	7.4	1.16	13090	.00	F

14	FC	3	D	CD	5	838.34	844.67	82	.0	41.6	50.8	7.6	1.19	13470	.00	F
15	FC	3	D	CD	5	838.34	844.67	83	.0	45.0	55.0	.0	.00	14580	.00	F
16	FC	3	D	CD	6	877.00	883.00	85	2.7	39.6	47.5	10.2	.60	12660	.00	F
17	FC	3	D	CD	6	877.00	883.00	82	.0	40.7	48.8	10.5	.62	13010	.00	F
18	FC	3	D	CD	6	877.00	883.00	83	.0	45.5	54.5	.0	.00	14540	.00	F
19	FC	3	D	D	7	873.34	875.92	85	2.8	39.5	45.7	12.0	.87	12350	.00	F
20	FC	3	D	D	7	873.34	875.92	82	.0	40.6	47.0	12.4	.90	12710	.00	F
21	FC	3	D	D	7	873.34	875.92	83	.0	46.3	53.7	.0	.00	14510	.00	F
22	FC	3	D	A	8	966.66	968.83	85	2.1	41.7	44.1	12.1	3.20	12520	.00	F
23	FC	3	D	A	8	966.66	968.83	82	.0	42.6	45.0	12.4	3.27	12790	.00	F
24	FC	3	D	A	8	966.66	968.83	83	.0	48.6	51.4	.0	.00	14500	.00	F

				SEAM CODE	SAMP NO	ULTIMATE ANALYSIS C	H2	N	CL	O2	FSI	GRINDABILITY	ASH SOFTENING TEMP. A	B	C	D
1	FC	3	E	J	1	.0	.0	.0	.0	.0	.0	.0	2150	0	0	0
2	FC	3	E	I	2	.0	.0	.0	.0	.0	.0	.0	2420	0	0	0
3	FC	3	E	I	3	.0	.0	.0	.0	.0	.0	.0	2310	0	0	0
4	FC	3	E	G	4	.0	.0	.0	.0	.0	.0	.0	2700	0	0	0
5	FC	3	E	CD	5	.0	.0	.0	.0	.0	.0	.0	2240	0	0	0
6	FC	3	E	CD	6	.0	.0	.0	.0	.0	.0	.0	2640	0	0	0
7	FC	3	E	D	7	.0	.0	.0	.0	.0	.0	.0	2750	0	0	0
8	FC	3	E	A	8	.0	.0	.0	.0	.0	.0	.0	2260	0	0	0

FLOAT SINK DATA

				SEAM CODE	SAMP NO	SP GR	TYPE CODE	% WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE
1	FC	3	G	J	1	000130I	DF	3950	.00	3.80	1.94	0	0000
2	FC	3	G	J	1	000140I	DF	7880	.00	6.00	2.18	0	0000
3	FC	3	G	J	1	000160I	DF	9330	.00	8.50	2.46	0	0000
4	FC	3	G	J	1	RAW000	DF	0000	.00	11.30	2.85	0	0000
5	FC	3	G	I	2	000130I	DF	1900	.00	3.20	.45	0	0000
6	FC	3	G	I	2	000140I	DF	8830	.00	7.60	.45	0	0000
7	FC	3	G	I	2	000160I	DF	9390	.00	8.60	.45	0	0000
8	FC	3	G	I	2	RAW000	DF	0000	.00	11.40	.43	0	0000
9	FC	3	G	I	3	000130I	DF	1900	.00	2.80	.51	0	0000
10	FC	3	G	I	3	000140I	DF	8830	.00	6.30	.44	0	0000
11	FC	3	G	I	3	000160I	DF	9390	.00	7.10	.44	0	0000
12	FC	3	G	I	3	RAW000	DF	0000	.00	8.10	.44	0	0000
13	FC	3	G	G	4	000130I	DF	1080	.00	4.80	.87	0	0000
14	FC	3	G	G	4	000140I	DF	9830	.00	7.30	.90	0	0000
15	FC	3	G	G	4	000160I	DF	9990	.00	7.40	.90	0	0000
16	FC	3	G	G	4	RAW000	DF	0000	.00	7.40	.90	0	0000
17	FC	3	G	CD	5	000130I	DF	3510	.00	3.40	.98	0	0000
18	FC	3	G	CD	5	000140I	DF	7730	.00	5.70	1.04	0	0000
19	FC	3	G	CD	5	000160I	DF	8530	.00	7.50	1.17	0	0000
20	FC	3	G	CD	5	RAW000	DF	0000	.00	17.10	1.21	0	0000
21	FC	3	G	CD	6	000130I	DF	2430	.00	4.20	.68	0	0000
22	FC	3	G	CD	6	000140I	DF	6520	.00	7.40	.67	0	0000
23	FC	3	G	CD	6	000160I	DF	7820	.00	10.30	.65	0	0000
24	FC	3	G	CD	6	RAW000	DF	0000	.00	21.70	.55	0	0000
25	FC	3	G	D	7	000130I	DF	2610	00	4.00	.79	0	0000
26	FC	3	G	D	7	000140I	DF	6890	00	8.00	.90	0	0000

				SEAM CODE	SAMP NO	SP GR	TYPE CODE	FLOAT SINK DATA % WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE
27	FC	3	G	D	7	000160[illegible]	DF	9130	.00	12.40	.89	0	0000
28	FC	3	G	D	7	RAW000	DF	0000	.00	15.70	.89	0	0000
29	FC	3	G	A	8	000120[illegible]	DF	1850	.00	4.30	1.92	0	0000
30	FC	3	G	A	8	000140[illegible]	DF	5750	.00	8.20	[illegible]	0	0000
31	FC	3	[illegible]	A	8	[illegible]	DF	5750	.00	[illegible]	[illegible]	0	0000
32	FC	3	[illegible]	A	8	[illegible]	DF	0000	.00	[illegible]	[illegible]	0	0000

SEQ NO = 1 DRILL HOLE NO = FC 5 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 21

SECTION CODE = H2 SURFACE ELEV. = 6161.44 HOW DET. = 6

N-COORD = 204708 E-COORD = 2072016 SOURCE = 2 LOCATION = 2

THK CORED = 400.67 THK N-CORED = 599.33 USGS = SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 5 FORMAT = B PROPERTY OR FARM = DRILLER = WILKEY J

DRILL CONTR = MOTT DATE DRILLED = 0363

TWP OR PLACE = EMERY COMMENTS = CEMENT

SEQ NO.	DRILL HOLE NUMBER		FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC	5	C	.00	599.33	599.33	SH	DRK		0	MANCOS
4	FC	5	C	599.33	600.25	.92	SS	DRK GRY CGR		0	
5	FC	5	C	600.25	602.42	2.17	SH	CRB		0	
6	FC	5	C	602.42	603.42	1.00	CO		UJ	0	
7	FC	5	C	603.42	603.83	.41	SS	DRK GRY CGR		0	
8	FC	5	C	603.83	605.25	1.42	CO		LJ	0	
9	FC	5	C	605.25	605.50	.25	BO		LJ	0	
10	FC	5	C	605.50	605.75	.25	CO		LJ	0	
11	FC	5	C	605.75	605.92	.17	BO		LJ	0	
12	FC	5	C	605.92	606.92	1.00	CO		LJ	0	
13	FC	5	C	606.92	608.33	1.41	SS	DRK GRY MGR		0	
14	FC	5	C	608.33	611.92	3.59	SS	LIT GRY FGR		0	
15	FC	5	C	611.92	615.92	4.00	SS	DRK GRY MGR		0	
16	FC	5	C	615.92	620.25	4.33	SS	LIT GRY CGR		0	
17	FC	5	C	620.25	623.92	3.67	SS	LIT GRY FGR		0	
18	FC	5	C	623.92	624.17	.25	SS	MGR BLK		0	
19	FC	5	C	624.17	625.00	.83	SS	LIT GRY FGR		0	
20	FC	5	C	625.00	659.92	34.92	SS	LIT GRY MGR		0	
21	FC	5	C	659.92	660.67	.75	SS	DRK GRY MGR		0	
22	FC	5	C	660.67	661.42	.75	SS	LIT GRY MGR		0	
23	FC	5	C	661.42	661.67	.25	SH	GRY DRK		0	
24	FC	5	C	661.67	662.00	.33	SS	GRY LIT MGR		0	
25	FC	5	C	662.00	663.08	1.08	SS	SHL LAM		0	
26	FC	5	C	663.08	663.75	.67	SS	DRK GRY MGR		0	
27	FC	5	C	663.75	666.75	3.00	SS	SHL LAM		0	
28	FC	5	C	666.75	667.50	.75	SS	LIT GRY FGR		0	
29	FC	5	C	667.50	669.17	1.67	SH	DRK GRY		0	
30	FC	5	C	669.17	669.33	.16	SS	CGR WHT		0	
31	FC	5	C	669.33	669.58	.25	BO			0	
32	FC	5	C	669.58	669.92	.34	CO		UI	0	
33	FC	5	C	669.92	670.25	.33	BO		UI	0	
34	FC	5	C	670.25	673.50	3.25	CO		UI	0	
35	FC	5	C	673.50	673.67	.17	BO		J	0	
36	FC	5	C	673.67	676.75	3.08	CO		LI	1	

SEQ NO.	DRILL HOLE NUMBER		FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
37	FC	5	C	676.75	679.00	2.25	SS	SHL LAM		0	
38	FC	5	C	679.00	686.25	7.25	SS	LIT GRY MGR		0	
39	FC	5	C	686.25	687.42	1.17	SS	SHL LAM		0	
40	FC	5	C	687.42	688.67	1.25	SS	LIT GRY MGR		0	
41	FC	5	C	688.67	689.08	.41	SH	SDY LAM		0	
42	FC	5	C	689.08	689.42	.34	SS	LIT GRY MGR		0	
43	FC	5	C	689.42	690.25	.83	SS	SHL LAM		0	
44	FC	5	C	690.25	692.25	2.00	SH	DRK GRY		0	
45	FC	5	C	692.25	693.17	.92	SH	CRB		0	
46	FC	5	C	693.17	694.58	1.41	CO	BNY	LI	5	
47	FC	5	C	694.58	696.33	1.75	CO		LI	5	
48	FC	5	C	696.33	696.83	.50	BO		LI	5	
49	FC	5	C	696.83	700.75	3.92	CO		LI	5	
50	FC	5	C	700.75	702.42	1.67	SH	CRB		0	
51	FC	5	C	702.42	702.62	.20	CO			0	
52	FC	5	C	702.62	703.08	.46	SH	CRB		0	
53	FC	5	C	703.08	720.25	17.17	SS	LIT GRY MGR		0	
54	FC	5	C	720.25	721.75	1.50	SS	LIT GRY CGR		0	
55	FC	5	C	721.75	732.08	10.33	SH	DRK GRY		0	
56	FC	5	C	732.08	733.00	.92	SH	CRB		0	
57	FC	5	C	733.00	734.75	1.75	SH	DRK GRY		0	
58	FC	5	C	734.75	735.17	.42	BO			0	
59	FC	5	C	735.17	735.33	.16	CO			0	
60	FC	5	C	735.33	735.50	.17	SH	GRY		0	
61	FC	5	C	735.50	740.33	4.83	CO		G	0	
62	FC	5	C	740.33	741.83	1.50	BO			0	
63	FC	5	C	741.83	760.25	18.42	SS	LIT GRY MGR		0	
64	FC	5	C	760.25	761.75	1.50	SS	DRK GRY CGR		0	
65	FC	5	C	761.75	771.67	9.92	SS	DRK GRY MGR		0	
66	FC	5	C	771.67	780.25	8.58	SS	DRK GRY MGR		0	
67	FC	5	C	780.25	781.75	1.50	SS	LIT GRY MGR		0	
68	FC	5	C	781.75	800.25	18.50	SS	DRK GRY MGR		0	
69	FC	5	C	800.25	805.08	4.83	SS	WHT MGR		0	
70	FC	5	C	805.08	807.00	1.92	SS	GRY MGR		0	
71	FC	5	C	807.00	819.25	12.25	SS	CGR WHT		0	
72	FC	5	C	819.25	820.25	1.00	CO			0	
73	FC	5	C	820.25	820.67	.42	SH	CRB		0	
74	FC	5	C	820.67	821.17	.50	CO	PYT		0	
75	FC	5	C	821.17	821.58	.41	SH	CRB		0	
76	FC	5	C	821.58	823.25	1.67	SH	FSL DRK GRY		0	
77	FC	5	C	823.25	824.00	.75	SH	CRB		0	
78	FC	5	C	824.00	826.17	2.17	CO		D	0	
79	FC	5	C	826.17	827.33	1.16	SH	GRY SDY		0	
80	FC	5	C	827.33	827.50	.17	BO			0	
81	FC	5	C	827.50	828.75	1.25	CO		C	0	
82	FC	5	C	828.75	829.08	.33	BO		C	0	
83	FC	5	C	829.08	830.83	1.75	CO		C	0	
84	FC	5	C	830.83	831.25	.42	BO		C	0	
85	FC	5	C	831.25	833.42	2.17	CO		C	0	
86	FC	5	C	833.42	835.00	1.58	SH	LIT GRY	C	0	
87	FC	5	C	835.00	835.75	.75	BO		C	0	

SEQ NO.	DRILL HOLE NUMBER		FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
88	FC	5	C	835.75	836.67	.92	CO		C	0	
89	FC	5	C	836.67	839.75	3.08	SH	LIT GRY		0	
90	FC	5	C	839.75	840.00	.25	SS	LIT GRY MGR		0	
91	FC	5	C	840.00	843.08	3.08	SH	LIT GRY SDY		0	
92	FC	5	C	843.08	844.83	1.75	SH	CRB		0	
93	FC	5	C	844.83	846.75	1.92	SH	DRK GRY		0	
94	FC	5	C	846.75	847.00	.25	CO		A	0	
95	FC	5	C	847.00	847.17	.17	BO		A	0	
96	FC	5	C	847.17	847.42	.25	SH	GRY	A	0	
97	FC	5	C	847.42	847.58	.16	CO		A	0	
98	FC	5	C	847.58	847.67	.09	BO		A	0	
99	FC	5	C	847.67	849.92	2.25	CO		A	0	
100	FC	5	C	849.92	850.08	.16	BO			0	
101	FC	5	C	850.08	850.25	.17	SH	DRK GRY		0	
102	FC	5	C	850.25	859.75	9.50	SS	LIT GRY FGR		0	
103	FC	5	C	859.75	865.42	5.67	SS	LIT GRY FGR		0	
104	FC	5	C	865.42	866.92	1.50	SH	DRK GRY		0	
105	FC	5	C	866.92	868.17	1.25	SS	LIT GRY MGR		0	
106	FC	5	C	868.17	870.83	2.66	SS	LIT GRY FGR		0	
107	FC	5	C	870.83	875.25	4.42	SS	SHL		0	
108	FC	5	C	875.25	875.92	.67	SS	LIT GRY MGR		0	
109	FC	5	C	875.92	877.50	1.58	SH	DRK GRY		0	
110	FC	5	C	877.50	878.00	.50	SS	LIT GRY MGR		0	
111	FC	5	C	878.00	880.50	2.50	SH	DRK GRY		0	
112	FC	5	C	880.50	880.92	.42	SS	LIT GRY MGR		0	
113	FC	5	C	880.92	890.67	9.75	SH	DRK GRY		0	
114	FC	5	C	890.67	893.67	3.00	SS	LIT GRY FGR		0	
115	FC	5	C	893.67	900.25	6.58	SS	DRK GRY CGR		0	
116	FC	5	C	900.25	902.75	2.50	SS	DRK GRY CGR		0	
117	FC	5	C	902.75	903.08	.33	SH	DRK GRY		0	
118	FC	5	C	903.08	903.67	.59	SS	DRK GRY CGR		0	
119	FC	5	C	903.67	903.92	.25	SS	LIT GRY FGR		0	
120	FC	5	C	903.92	905.08	1.16	SS	DRK GRY CGR		0	
121	FC	5	C	905.08	906.83	1.75	SH	DRK GRY		0	
122	FC	5	C	906.83	921.92	15.09	SS	SHL		0	
123	FC	5	C	921.92	927.42	5.50	SS	LIT GRY MGR		0	
124	FC	5	C	927.42	929.50	2.08	SS	SHL		0	
125	FC	5	C	929.50	934.58	5.08	SS	LIT GRY MGR		0	
126	FC	5	C	934.58	935.92	1.34	BO			0	
127	FC	5	C	935.92	937.42	1.50	SH	DRK SDY GRY		0	
128	FC	5	C	937.42	940.25	2.83	SS	LIT GRY FGR		0	
129	FC	5	C	940.25	944.25	4.00	SS	DRK GRY CGR		0	
130	FC	5	C	944.25	962.00	17.75	SS	LIT GRY MGR		0	
131	FC	5	C	962.00	963.00	1.00	SS	LIT GRY CGR		0	
132	FC	5	C	963.00	983.00	20.00	SS	WHT FGR		0	
133	FC	5	C	983.00	995.00	12.00	SH	GRY SDY		0	
134	FC	5	C	995.00	1000.00	5.00	SH	DRK BH		0	

				SEAM CODE	SAMP NO	SAMPLE DEPTH FROM	TO	ANALYSIS CODE	PROXIMATE ANALYSIS %MOIS	%VOL	%CARB	%ASH	%SUL	BTU	EQUIL. MOIST	F P
1	FC	5	D	CD	1	823.75	833.42	81	50.3	95.4	57.0	98.0	8.61	23000	.00	F
2	FC	5	D	CD	1	823.75	833.42	85	2.3	40.6	47.0	10.1	.89	12640	.00	F
3	FC	5	D	CD	1	823.75	833.42	82	.0	41.6	48.1	10.3	.91	12940	.00	F
4	FC	5	D	CD	1	823.75	833.42	83	.0	46.4	53.6	.0	.00	14430	.00	F
5	FC	5	D	G	2	735.16	740.33	85	2.3	41.6	48.2	7.9	1.41	13110	.00	F
6	FC	5	D	G	2	735.16	740.33	82	.0	42.6	49.3	8.1	1.44	13420	.00	F
7	FC	5	D	G	2	735.16	740.33	83	.0	46.4	53.6	.0	.00	14600	.00	F
8	FC	5	D	UI	3	669.58	676.75	85	2.5	38.8	47.6	11.1	2.17	12470	.00	F
9	FC	5	D	UI	3	669.58	676.75	82	.0	39.8	48.8	11.4	22.31	27900	.00	F
10	FC	5	D	UI	3	669.58	676.75	83	.0	4.4	95.5	10.0	.00	14440	.00	F
11	FC	5	D	LI5	4	693.17	700.75	85	2.4	39.7	50.8	7.1	12.61	31700	.00	F
12	FC	5	D	LI5	4	693.17	700.75	82	.0	40.7	52.0	7.3	12.91	34900	.00	F
13	FC	5	D	LI5	4	693.17	700.75	83	.0	43.9	56.1	.0	.00	14550	.00	F

				SEAM CODE	SAMP NO	ULTIMATE ANALYSIS C	H2	N	CL	O2	FSI	GRINDABILITY	ASH SOFTENING TEMP. A	B	C	D
1	FC	5	E	CD	1	.0	.0	.0	.0	.0	.0	.0	2700	0	0	0
2	FC	5	E	G	2	.0	.0	.0	.0	.0	.0	.0	2250	0	0	0
3	FC	5	E	UI	3	.0	.0	.0	.0	.0	.0	.0	2370	0	0	0
4	FC	5	E	LI5	4	.0	.0	.0	.0	.0	.0	.0	2200	0	0	0

				SEAM CODE	SAMP NO	SP GR	TYPE CODE	FLOAT SINK DATA % WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE
1	FC	5	G	CD	1	000130	DF	2410	.00	4.30	.88	0	0000
2	FC	5	G	CD	1	000140	DF	5220	.00	7.10	.91	0	0000
3	FC	5	G	CD	1	000160	DF	6430	.00	10.30	.91	0	0000
4	FC	5	G	CD	1	RAW000	DF	0000	.00	32.90	.87	0	0000
5	FC	5	G	G	2	000130	DF	2860	.00	3.70	1.08	0	0000
6	FC	5	G	G	2	000140	DF	8170	.00	6.60	1.37	0	0000
7	FC	5	G	G	2	000160	DF	8970	.00	8.10	1.44	0	0000
8	FC	5	G	G	2	RAW000	DF	0000	.00	14.60	1.47	0	0000
9	FC	5	G	UI	3	000130	DF	1750	.00	2.80	.80	0	0000
10	FC	5	G	UI	3	000140	DF	5950	.00	6.80	1.54	0	0000
11	FC	5	G	UI	3	000160	DF	8740	.00	11.40	2.21	0	0000
12	FC	5	G	UI	3	RAW000	DF	0000	.00	18.00	2.34	0	0000
13	FC	5	G	LI5	4	000130	DF	3300	.00	2.70	1.08	0	0000
14	FC	5	G	LI5	4	000140	DF	8060	.00	5.10	1.14	0	0000
15	FC	5	G	LI5	4	000160	DF	9230	.00	7.30	1.31	0	0000
16	FC	5	G	LI5	4	RAW000	DF	0000	.00	11.50	1.48	0	0000

SEQ NO = 1 DRILL HOLE NO = FC 9 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 31

SECTION CODE = E8 SURFACE ELEV. = 6032.90 HOW DET. = 6

N-COORD = 191914 E-COORD = 2057959 SOURCE = 2 LOCATION = 2

THK CORED = 839.00 THK N-CORED = 89.00 USGS = ACORD LAKES SZE.CD. = 1

SEQ NO. = 2 DRILL HOLE NO = FC 9 FORMAT = B PROPERTY OR FARM = DRILLER = WILKEY J

DRILL CONTR = MOTT DATE DRILLED = 0563

TWP OR PLACE = EMERY COMMENTS = CEMENT

SEQ NO.	DRILL HOLE NUMBER		FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC	9	C	.00	89.00	89.00	SM			0	
4	FC	9	C	89.00	149.00	60.00	SH	DRK		0	
5	FC	9	C	149.00	292.00	143.00	SH	DRK		0	
6	FC	9	C	292.00	576.00	284.00	SH	DRK FSL		0	
7	FC	9	C	576.00	576.00	.00	SS		TF	0	
8	FC	9	C	576.00	577.00	1.00	SS	DRK GRY		0	
9	FC	9	C	577.00	627.50	50.50	SS	GRY MGR FGR		0	
10	FC	9	C	627.50	627.83	.33	SH	DRK GRY		0	
11	FC	9	C	627.83	630.42	2.59	SS	GRY CRB		0	
12	FC	9	C	630.42	630.71	.29	BO			0	
13	FC	9	C	630.71	631.04	.33	CO			0	LOCAL
14	FC	9	C	631.04	632.75	1.71	SH	SDY GRY		0	
15	FC	9	C	632.75	656.92	24.17	SS	GRY MGR CRB		0	
16	FC	9	C	656.92	657.37	.45	SS	LIT GRY FGR SHY		0	
17	FC	9	C	657.37	657.58	.21	CO			0	
18	FC	9	C	657.58	658.92	1.34	SH	DRK GRY CRB COS		0	
19	FC	9	C	658.92	660.50	1.58	CO		K	0	
20	FC	9	C	660.50	665.00	4.50	CO		K	0	
21	FC	9	C	665.00	665.67	.67	BO			0	
22	FC	9	C	665.67	670.17	4.50	SS	DRK LIT GRY WHT		0	
23	FC	9	C	670.17	671.17	1.00	SH	DRK GRY CRB SHY		0	
24	FC	9	C	671.17	672.08	.91	CO	BNY	J	0	
25	FC	9	C	672.08	676.08	4.00	CO		J	0	
26	FC	9	C	676.08	676.42	.34	CO	BNY	J	0	
27	FC	9	C	676.42	677.33	.91	CL		J	0	
28	FC	9	C	677.33	679.00	1.67	CO		J	0	
29	FC	9	C	679.00	687.33	8.33	SH	LIT DRK SDY		0	
30	FC	9	C	687.33	687.42	.09	BO		UI	0	
31	FC	9	C	687.42	688.42	1.00	CO		UI	0	
32	FC	9	C	688.42	688.50	.08	BO		UI	0	
33	FC	9	C	688.50	688.75	.25	CO		UI	0	
34	FC	9	C	688.75	688.83	.08	CO	BNY PYT	UI	0	
35	FC	9	C	688.83	689.21	.38	CO		UI	0	
36	FC	9	C	689.21	689.29	.08	CO	SDY	UI	0	

SEQ NO.	DRILL HOLE NUMBER		FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
37	FC	9	C	689.29	690.92	1.63	CO		UI	0	
38	FC	9	C	690.92	691.33	.41	SH	CRB		0	
39	FC	9	C	691.33	692.46	1.13	CL	SDY		0	
40	FC	9	C	692.46	692.58	.12	SH	CRB		0	
41	FC	9	C	692.58	693.92	1.34	CO		LI	1	
42	FC	9	C	693.92	695.25	1.33	BO		LI	1	
43	FC	9	C	695.25	700.17	4.92	CO		LI	1	
44	FC	9	C	700.17	700.37	.20	BO			0	
45	FC	9	C	700.37	701.25	.88	CO			0	
46	FC	9	C	701.25	701.33	.08	BO			0	
47	FC	9	C	701.33	703.25	1.92	CO		LI	5	
48	FC	9	C	703.25	703.54	.29	BO		LI	5	
49	FC	9	C	703.54	704.17	.63	CO		LI	5	
50	FC	9	C	704.17	712.17	8.00	CO		LI	5	
51	FC	9	C	712.17	714.50	2.33	SH	DRK GRY CRB		0	
52	FC	9	C	714.50	716.50	2.00	SS	FGR GRY		0	
53	FC	9	C	716.50	728.58	12.08	SH	LIT DRK GRY SDY		0	
54	FC	9	C	728.58	731.33	2.75	SH	DRK GRY		0	
55	FC	9	C	731.33	733.67	2.34	SH	DRK GRY SDY		0	
56	FC	9	C	733.67	761.08	27.41	SH	LIT DRK GRY SDY		0	
57	FC	9	C	761.08	782.33	21.25	SS	LIT GRY WHT CGR		0	
58	FC	9	C	782.33	782.54	.21	BO		G	0	
59	FC	9	C	782.54	782.67	.13	CO		G	0	
60	FC	9	C	782.67	783.00	.33	CL	BNY	G	0	
61	FC	9	C	783.00	788.50	5.50	CO		G	0	
62	FC	9	C	788.50	788.75	.25	BO		G	0	
63	FC	9	C	788.75	793.75	5.00	SH	DRK GRY SSE		0	
64	FC	9	C	793.75	798.50	4.75	SH	CRB DRK GRY		0	
65	FC	9	C	798.50	811.00	12.50	SH	DRK GRY SDY		0	
66	FC	9	C	811.00	816.92	5.92	SS	LIT GRY COL		0	
67	FC	9	C	816.92	817.67	.75	SS	LIT GRY CRB		0	
68	FC	9	C	817.67	820.25	2.58	SS	LIT GRY MGR		0	
69	FC	9	C	820.25	820.92	.67	SS	LIT GRY CGR		0	
70	FC	9	C	820.92	825.83	4.91	SS	LIT GRY WHT MGR		0	
71	FC	9	C	825.83	828.33	2.50	SH	DRK LIT GRY SDY		0	
72	FC	9	C	828.33	831.92	3.59	SH	DRK GRY CRB		0	
73	FC	9	C	831.92	832.17	.25	CO		D	0	
74	FC	9	C	832.17	832.67	.50	BO		D	0	
75	FC	9	C	832.67	833.21	.54	CO		D	0	
76	FC	9	C	833.21	833.33	.12	BO		D	0	
77	FC	9	C	833.33	834.42	1.09	CO		D	0	
78	FC	9	C	834.42	834.46	.04	BO		D	0	
79	FC	9	C	834.46	835.25	.79	CO		D	0	
80	FC	9	C	835.25	836.12	.87	SH	BNY GRY CLY SDY		0	
81	FC	9	C	836.12	836.50	.38	SH	DRK GRY		0	
82	FC	9	C	836.50	837.67	1.17	CO		C	0	
83	FC	9	C	837.67	837.87	.20	BO		C	0	
84	FC	9	C	837.87	837.95	.08	CO		C	0	
85	FC	9	C	837.95	838.33	.38	BO		C	0	
86	FC	9	C	838.33	839.12	.79	CO		C	0	
87	FC	9	C	839.12	839.25	.13	BO		C	0	

SEQ NO.	DRILL HOLE NUMBER		FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
88	FC	9	C	839.25	841.00	1.75	CO		C	0	
89	FC	9	C	841.00	842.54	1.54	BO		C	0	
90	FC	9	C	842.54	843.96	1.42	CO		C	0	
91	FC	9	C	843.96	845.83	1.87	CL	LIT GRY SHY GRY		0	
92	FC	9	C	845.83	849.67	3.84	SH	DRK GRY		0	
93	FC	9	C	849.67	849.92	.25	CL			0	
94	FC	9	C	849.92	852.67	2.75	SH	DRK GRY		0	
95	FC	9	C	852.67	854.25	1.58	CO	BNY SHY		0	
96	FC	9	C	854.25	859.17	4.92	SH	DRK GRY		0	
97	FC	9	C	859.17	861.08	1.91	SH	CRB COL		0	
98	FC	9	C	861.08	862.50	1.42	SH	DRK GRY CRB DYT		0	
99	FC	9	C	862.50	864.25	1.75	SS	LIT GRY SHY		0	
100	FC	9	C	864.25	868.67	4.42	SH	DRK GRY SSE		0	
101	FC	9	C	868.67	873.00	4.33	SH	SDY COL BNY		0	
102	FC	9	C	873.00	875.17	2.17	CO	BNY		0	
103	FC	9	C	875.17	876.42	1.25	SH	CRB SDY		0	
104	FC	9	C	876.42	885.42	9.00	SH	GRY DRK SDY		0	
105	FC	9	C	885.42	887.25	1.83	SS	LIT GRY COL		0	
106	FC	9	C	887.25	894.17	6.92	CO		A	0	
107	FC	9	C	894.17	894.58	.41	BO			0	
108	FC	9	C	894.58	903.58	9.00	SH	DRK GRY FGR SSE		0	
109	FC	9	C	903.58	903.92	.34	SS	LIT GRY CGR		0	
110	FC	9	C	903.92	909.50	5.58	SH	DRK GRY		0	
111	FC	9	C	909.50	914.21	4.71	SH	GRY DRK SDY		0	
112	FC	9	C	914.21	914.58	.37	SH	DRK GRY		0	
113	FC	9	C	914.58	916.67	2.09	SS	LIT FGR DRK SHY		0	
114	FC	9	C	916.67	927.33	10.66	SS	MGR GRY		0	
115	FC	9	C	927.33	928.00	.67	ND	BH		0	LOST CORE

				SEAM CODE	SAMP NO	SAMPLE DEPTH FROM	SAMPLE DEPTH TO	ANALYSIS CODE	PROXIMATE ANALYSIS %MOIS	%VOL	%CARB	%ASH	%SUL	BTU	EQUIL. MOIST	F P
1	FC	9	D	K	1	658.92	665.00	85	2.8	43.9	45.0	8.3	3.32	12860	.00	F
2	FC	9	D	K	1	658.92	665.00	82	.0	45.2	46.3	8.5	3.42	13230	.00	F
3	FC	9	D	K	1	658.92	665.00	83	.0	49.4	50.6	.0	.00	14460	.00	F
4	FC	9	D	J	2	671.17	679.00	85	3.0	42.3	47.3	7.4	2.44	12920	.00	F
5	FC	9	D	J	2	671.17	679.00	82	.0	43.6	48.8	7.6	2.52	13320	.00	F
6	FC	9	D	J	2	671.17	679.00	83	.0	47.2	52.8	.0	.00	14420	.00	F
7	FC	9	D	I	3	687.41	691.33	85	3.1	41.0	46.1	9.8	1.32	12540	.00	F
8	FC	9	D	I	3	687.41	691.33	82	.0	42.3	47.6	10.1	1.36	12940	.00	F
9	FC	9	D	I	3	687.41	691.33	83	.0	47.1	52.9	.0	.00	14390	.00	F
10	FC	9	D	I	4	692.59	703.17	85	3.2	39.0	49.6	8.2	.49	12820	.00	F
11	FC	9	D	I	4	692.59	703.17	82	.0	40.3	51.2	8.5	.51	13240	.00	F
12	FC	9	D	I	4	692.59	703.17	83	.0	44.0	56.0	.0	.00	14470	.00	F
13	FC	9	D	I	5	703.17	712.17	85	3.0	40.4	49.8	6.8	.53	13160	.00	F
14	FC	9	D	I	5	703.17	712.17	82	.0	41.7	51.3	7.0	.55	13570	.00	F
15	FC	9	D	I	5	703.17	712.17	83	.0	44.8	55.2	.0	.00	14590	.00	F
16	FC	9	D	G	6	782.34	788.67	85	2.9	40.6	49.2	7.3	.99	13080	.00	F
17	FC	9	D	G	6	782.34	788.67	82	.0	41.8	50.7	7.5	1.02	13470	.00	F
18	FC	9	D	G	6	782.34	788.67	83	.0	45.2	54.8	.0	.00	14560	.00	F

19	FC	9	D	CD	7	831.92	844.46	81	5.0	39.0	45.9	10.1	.86	12230	.00	F
20	FC	9	D	CD	7	831.92	844.46	85	2.6	40.0	47.1	10.3	.89	12530	.00	F
21	FC	9	D	CD	7	831.92	844.46	82	.0	41.1	48.3	10.6	.91	12870	.00	F
22	FC	9	D	CD	7	831.92	844.46	83	.0	46.0	54.0	.0	.00	14400	.00	F
23	FC	9	D	A	8	887.25	894.17	85	2.7	40.6	49.0	7.7	1.32	13170	.00	F
24	FC	9	D	A	8	887.25	894.17	82	.0	41.7	50.4	7.9	1.36	13540	.00	F
25	FC	9	D	A	8	887.25	894.17	83	.0	45.3	54.7	.0	.00	14700	.00	F

				SEAM CODE	SAMP NO	ULTIMATE ANALYSIS C	H2	N	CL	O2	FSI	GRINDABILITY	ASH SOFTENING TEMP. A	B	C	D
1	FC	9	E	K	1	.0	.0	.0	.0	.0	.0	.0	2100	0	0	0
2	FC	9	E	J	2	.0	.0	.0	.0	.0	.0	.0	2100	0	0	0
3	FC	9	E	I	3	.0	.0	.0	.0	.0	.0	.0	2660	0	0	0
4	FC	9	E	I	4	.0	.0	.0	.0	.0	.0	.0	2270	0	0	0
5	FC	9	E	I	5	.0	.0	.0	.0	.0	.0	.0	2170	0	0	0
6	FC	9	E	G	6	.0	.0	.0	.0	.0	.0	.0	2200	0	0	0
7	FC	9	E	CD	7	.0	.0	.0	.0	.0	.0	.0	2700	0	0	0
8	FC	9	E	A	8	.0	.0	.0	.0	.0	.0	.0	2270	0	0	0

FLOAT SINK DATA

				SEAM CODE	SAMP NO	SP GR	TYPE CODE	% WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE
1	FC	9	G	K	1	000130!	DF	2100	.00	3.60	2.70	0	0000
2	FC	9	G	K	1	000140!	DF	6830	.00	6.30	3.35	0	0000
3	FC	9	G	K	1	000160!	DF	7880	.00	8.60	3.38	0	0000
4	FC	9	G	K	1	RAW000:	DF	0000	.00	20.70	3.14	0	0000
5	FC	9	G	J	2	000130!	DF	3550	.00	3.40	1.42	0	0000
6	FC	9	G	J	2	000140!	DF	8120	.00	6.20	2.03	0	0000
7	FC	9	G	J	2	000160!	DF	9240	.00	7.80	2.53	0	0000
8	FC	9	G	J	2	RAW000:	DF	0000	.00	11.00	3.07	0	0000
9	FC	9	G	I	3	000130!	DF	2780	.00	3.60	1.20	0	0000
10	FC	9	G	I	3	000140!	DF	6790	.00	6.80	1.26	0	0000
11	FC	9	G	I	3	000160!	DF	8220	.00	10.00	1.32	0	0000
12	FC	9	G	I	3	RAW000:	DF	0000	.00	18.60	1.47	0	0000
13	FC	9	G	I	4	000130!	DF	3100	.00	3.40	.47	0	0000
14	FC	9	G	I	4	000140!	DF	7850	.00	6.20	.51	0	0000
15	FC	9	G	I	4	000160!	DF	8850	.00	8.40	.53	0	0000
16	FC	9	G	I	4	RAW000:	DF	0000	.00	17.30	.52	0	0000
17	FC	9	G	I	5	000130!	DF	3100	.00	3.70	.57	0	0000
18	FC	9	G	I	5	000140!	DF	7850	.00	5.70	.55	0	0000
19	FC	9	G	I	5	000160!	DF	8850	.00	7.00	.55	0	0000
20	FC	9	G	I	5	RAW000:	DF	0000	.00	8.40	.54	0	0000
21	FC	9	G	G	6	000130!	DF	2910	.00	3.30	.82	0	0000
22	FC	9	G	G	6	000140!	DF	7160	.00	5.70	.86	0	0000
23	FC	9	G	G	6	000160!	DF	0799	.00	7.40	.99	0	0000
24	FC	9	G	G	6	RAW000:	DF	0000	.00	18.80	1.03	0	0000
25	FC	9	G	CD	7	000130!	DF	2400	.00	3.90	.86	0	0000
26	FC	9	G	CD	7	000140!	DF	4920	.00	6.50	.87	0	0000
27	FC	9	G	CD	7	000160!	DF	6230	.00	10.40	.87	0	0000
28	FC	9	G	CD	7	RAW000	DF	0000	.00	34.40	.67	0	0000
29	FC	9	G	A	8	000130!	DF	3490	.00	3.80	1.04	0	0000
30	FC	9	G	A	8	000140!	DF	8430	.00	6.40	1.17	0	0000

								FLOAT SINK DATA					
				SEAM CODE	SAMP NO	SP GR	TYPE CODE	% WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE
31	FC	9	G	A	8	000160	DF	9230	.00	7.80	1.37	0	0000
32	FC	9	G	A	8	RAW000	DF	0000	.00	11.20	1.67	0	0000

SEQ NO = 1 DRILL HOLE NO = FC 28 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 22

SECTION CODE = H2 SURFACE ELEV. = 6144.00 HOW DET. = 3

N-COORD = 204754 E-COORD = 2077489 SOURCE = 2 LOCATION = 2

THK CORED = 308.25 THK N-CORED = 365.00 USGS = EMERY EAST SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 28 FORMAT = B PROPERTY OR FARM = DRILLER = LAUGHLIN OD

DRILL CONTR = JOY DATE DRILLED = 0165

TWP OR PLACE = EMERY COMMENTS = CEMENT

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 28	C	.00	365.00	365.00	SH	DRK GRY		0	MANCOS
4	FC 28	C	365.00	366.67	1.67	SS	DRK MGR	TF	0	
5	FC 28	C	366.67	377.92	11.25	SS	LIT MGR		0	
6	FC 28	C	377.92	379.17	1.25	SH	LIT MGR SDY		0	
7	FC 28	C	379.17	399.25	20.08	SS	LIT GRY MGR		0	
8	FC 28	C	399.25	399.58	.33	SS	LIT GRY CGR		0	
9	FC 28	C	399.58	412.42	12.84	SS	LIT GRY SHS MGR		0	
10	FC 28	C	412.42	412.67	.25	SS	LIT GRY COS		0	
11	FC 28	C	412.67	413.77	1.10	SH	CRB		0	
12	FC 28	C	413.77	414.77	1.00	CO	SHS	J	0	
13	FC 28	C	414.77	415.17	.40	SH		J	0	
14	FC 28	C	415.17	416.10	.93	CO		J	0	
15	FC 28	C	416.10	416.23	.13	BO		J	0	
16	FC 28	C	416.23	416.47	.24	SH		J	0	
17	FC 28	C	416.47	417.14	.67	BO		J	0	
18	FC 28	C	417.14	419.17	2.03	CO		J	0	
19	FC 28	C	419.17	421.25	2.08	SH	CRB		0	
20	FC 28	C	421.25	425.42	4.17	SS	GRY SHS FGR		0	
21	FC 28	C	425.42	425.92	.50	SH	CRB		0	
22	FC 28	C	425.92	426.40	.48	CO	SHS	UI	0	
23	FC 28	C	426.40	428.54	2.14	CO		UI	0	
24	FC 28	C	428.54	428.59	.05	SH		UI	0	
25	FC 28	C	428.59	429.10	.51	CO		UI	0	
26	FC 28	C	429.10	429.41	.31	SH		UI	0	
27	FC 28	C	429.41	434.83	5.42	CO		UI	0	
28	FC 28	C	434.83	435.17	.34	SH	DRK SDY		0	
29	FC 28	C	435.17	437.00	1.83	SS	GRY SHS MGR		0	
30	FC 28	C	437.00	439.17	2.17	SH	DRK		0	
31	FC 28	C	439.17	439.47	.30	SH	CRB		0	
32	FC 28	C	439.47	440.60	1.13	CO	SHS	LI	0	
33	FC 28	C	440.60	444.24	3.64	CO		LI	0	
34	FC 28	C	444.24	444.27	.03	SH		LI	0	
35	FC 28	C	444.27	447.07	2.80	CO		LI	0	
36	FC 28	C	447.07	447.25	.18	BO		LI	0	

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
37	FC 28	C	447.25	447.67	.42	SH	DRK		0	
38	FC 28	C	447.67	447.92	.25	SH	SFT		0	
39	FC 28	C	447.92	449.58	1.66	SH	DRK		0	
40	FC 28	C	449.58	450.00	.42	SH	CRB		0	
41	FC 28	C	450.00	450.67	.67	CO			0	
42	FC 28	C	450.67	451.17	.50	SH	CRB		0	
43	FC 28	C	451.17	466.83	15.66	SH	DRK		0	
44	FC 28	C	466.83	471.17	4.34	SS	GRY FGR		0	
45	FC 28	C	471.17	473.08	1.91	SH	DRK SDY		0	
46	FC 28	C	473.08	474.50	1.42	SH	CRB		0	
47	FC 28	C	474.50	476.50	2.00	CO		G	0	
48	FC 28	C	476.50	476.58	.08	SS	PYT	G	0	
49	FC 28	C	476.58	477.33	.75	CO		G	0	
50	FC 28	C	477.33	478.42	1.09	SH	CRB		0	
51	FC 28	C	478.42	480.17	1.75	SH	DRK		0	
52	FC 28	C	480.17	480.33	.16	SH	SFT		0	
53	FC 28	C	480.33	481.25	.92	SH	CRB		0	
54	FC 28	C	481.25	483.92	2.67	SH	DRK		0	
55	FC 28	C	483.92	484.92	1.00	SS	GRY SHS MGR		0	
56	FC 28	C	484.92	488.67	3.75	SH	DRK		0	
57	FC 28	C	488.67	489.58	.91	SS	GRY SHS MGR		0	
58	FC 28	C	489.58	490.00	.42	SH	DRK SDY		0	
59	FC 28	C	490.00	490.42	.42	SS	GRY SHS MGR		0	
60	FC 28	C	490.42	491.08	.66	SH	DRK SDY		0	
61	FC 28	C	491.08	491.75	.67	SS	GRY MGR SHS		0	
62	FC 28	C	491.75	500.33	8.58	SS	GRY CGR COS		0	
63	FC 28	C	500.33	541.00	40.67	SS	GRY CGR		0	
64	FC 28	C	541.00	544.92	3.92	SS	GRY MGR SHS		0	
65	FC 28	C	544.92	546.08	1.16	SS	GRY CGR		0	
66	FC 28	C	546.08	558.25	12.17	SS	GRY MGR COS		0	
67	FC 28	C	558.25	563.25	5.00	SH	DRK		0	
68	FC 28	C	563.25	563.83	.58	SH			0	
69	FC 28	C	563.83	565.33	1.50	CO		D	0	
70	FC 28	C	565.33	566.58	1.25	SH	SFT		0	
71	FC 28	C	566.58	567.75	1.17	SH	CRB		0	
72	FC 28	C	567.75	567.92	.17	CO		C	0	
73	FC 28	C	567.92	568.25	.33	BO		C	0	
74	FC 28	C	568.25	570.33	2.08	SH	CRB	C	0	
75	FC 28	C	570.33	571.00	.67	SH	DRK	C	0	
76	FC 28	C	571.00	571.92	.92	CO		C	0	
77	FC 28	C	571.92	574.75	2.83	SH	SFT	C	0	
78	FC 28	C	574.75	574.92	.17	SH	CRB	C	0	
79	FC 28	C	574.92	576.08	1.16	CO		C	0	
80	FC 28	C	576.08	577.75	1.67	SH	CRB		0	
81	FC 28	C	577.75	579.75	2.00	SH	SDY		0	
82	FC 28	C	579.75	581.83	2.08	SH	DRK		0	
83	FC 28	C	581.83	582.75	.92	SH	CRB		0	
84	FC 28	C	582.75	583.50	.75	CO			0	
85	FC 28	C	583.50	585.58	2.08	SH	CRB		0	
86	FC 28	C	585.58	586.75	1.17	CO		A	0	
87	FC 28	C	586.75	587.00	.25	SH	CRB		0	

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
88	FC 28	C	587.00	588.17	1.17	SH	DRK		0	
89	FC 28	C	588.17	595.75	7.58	SS	LIT GRY MGR SHS		0	
90	FC 28	C	595.75	596.50	.75	SS	LIT GRY CGR COS		0	
91	FC 28	C	596.50	598.75	2.25	SS	LIT GRY FGR SHS		0	
92	FC 28	C	598.75	604.50	5.75	SS	GRY CGR		0	
93	FC 28	C	604.50	610.75	6.25	SS	GRY FGR SHS		0	
94	FC 28	C	610.75	611.42	.67	SS	GRY MGR CSE		0	
95	FC 28	C	611.42	613.67	2.25	SS	GRY FGR SHS		0	
96	FC 28	C	613.67	618.92	5.25	SH	DRK SDY		0	
97	FC 28	C	618.92	624.67	5.75	SS	GRY MGR SHS		0	
98	FC 28	C	624.67	633.25	8.58	SS	GRY CGR COS		0	
99	FC 28	C	633.25	658.08	24.83	SS	GRY MGR SHS		0	
100	FC 28	C	658.08	673.25	15.17	SS	GRY MGR BH		0	

				SEAM CODE	SAMP NO	SAMPLE DEPTH FROM	TO	ANALYSIS CODE	PROXIMATE ANALYSIS %MOIS	%VOL	%CARB	%ASH	%SUL	BTU	EQUIL. MOIST	F P
1	FC	28	D	I	1	412.52	419.17	85	2.1	42.6	41.7	13.6	2.47	12180	.00	F
2	FC	28	D	I	1	412.52	419.17	82	.0	43.5	42.6	13.9	2.52	12440	.00	F
3	FC	28	D	I	1	412.52	419.17	83	.0	50.5	49.5	.0	.00	14450	.00	F
4	FC	28	D	I	2	431.40	434.83	85	1.9	41.4	49.8	6.9	1.52	13270	.00	F
5	FC	28	D	I	2	431.40	434.83	82	.0	42.2	50.8	7.0	1.55	13530	.00	F
6	FC	28	D	I	2	431.40	434.83	83	.0	45.4	54.6	.0	.00	14550	.00	F
7	FC	28	D	I	3	429.41	434.83	85	2.2	41.3	50.4	6.1	.61	13330	.00	F
8	FC	28	D	I	3	429.41	434.83	82	.0	42.2	51.6	6.2	.62	13630	.00	F
9	FC	28	D	I	3	429.41	434.83	83	.0	45.0	55.0	.0	.00	14530	.00	F
10	FC	28	D	I	4	439.64	447.42	85	2.3	40.1	51.8	5.8	.79	13390	.00	F
11	FC	28	D	I	4	439.64	447.42	82	.0	41.1	53.0	5.9	.81	13710	.00	F
12	FC	28	D	I	4	439.64	447.42	83	.0	43.7	56.3	.0	.00	14570	.00	F

				SEAM CODE	SAMP NO	ULTIMATE ANALYSIS C	H2	N	CL	O2	FSI	GRINDABILITY	ASH SOFTENING TEMP. A	B	C	D
1	FC	28	E	I	1	.0	.0	.0	.0	.0	.0	.0	2400	0	0	0
2	FC	28	E	I	2	.0	.0	.0	.0	.0	.0	.0	2140	0	0	0
3	FC	28	E	I	3	.0	.0	.0	.0	.0	.0	.0	2400	0	0	0
4	FC	28	E	I	4	.0	.0	.0	.0	.0	.0	.0	2130	0	0	0

FLOAT SINK DATA

				SEAM CODE	SAMP NO	SP GR	TYPE CODE	% WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE
1	FC	28	G	I	1	000130	DF	1900	.00	3.70	1.77	0	0000
2	FC	28	G	I	1	000140	DF	5600	.00	8.40	2.21	0	0000
3	FC	28	G	I	1	000160	DF	8240	.00	13.80	2.54	0	0000
4	FC	28	G	I	1	RAW000	DF	0000	.00	19.50	3.07	0	0000
5	FC	28	G	I	2	000130	DF	4660	.00	3.10	.95	0	0000
6	FC	28	G	I	2	000140	DF	7920	.00	5.50	1.30	0	0000

				SEAM CODE	SAMP NO	SP GR	TYPE CODE	FLOAT SINK DATA % WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE
7	FC	28	G	I	2	000160	DF	8960	.00	6.80	1.54	0	0000
8	FC	28	G	I	2	RAW000	DF	0000	.00	19.90	2.09	0	0000
9	FC	28	G	I	3	000130	DF	4660	.00	2.70	.61	0	0000
10	FC	28	G	I	3	000140	DF	7920	.00	4.20	.60	0	0000
11	FC	28	G	I	3	000160	DF	8960	.00	6.10	.59	0	0000
12	FC	28	G	I	3	RAW000	DF	0000	.00	6.50	.62	0	0000
13	FC	28	G	I	4	000130	DF	5280	.00	2.80	.72	0	0000
14	FC	28	G	I	4	000140	DF	8720	.00	4.60	.76	0	0000
15	FC	28	G	I	4	000160	DF	9490	.00	5.80	.80	0	0000
16	FC	28	G	I	4	RAW000	DF	0000	.00	8.10	1.09	0	0000

SEQ NO = 1 DRILL HOLE NO = FC 29 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 21

SECTION CODE = B8 SURFACE ELEV. = 6152.00 HOW DET. = 3

N-COORD = 200460 E-COORD = 2068180 SOURCE = 2 LOCATION = 2

THK CORED = 302.75 THK N-CORED = 590.00 USGS = ACORD LAKES SZE.CD. = 1

SEQ NO. = 2 DRILL HOLE NO = FC 29 FORMAT = B PROPERTY OR FARM = DRILLER = LAUGHLIN OD

DRILL CONTR = JOY DATE DRILLED = 0165

TWP OR PLACE = EMERY COMMENTS = CEMENT

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 29	C	.00	585.17	585.17	SH			0	MANCOS
4	FC 29	C	585.17	590.00	4.83	SS	DRK GRY MGR SHS		0	
5	FC 29	C	590.00	590.00	.00	SS	EXH	TF	0	
6	FC 29	C	590.00	635.92	45.92	SS	GRY MGR		0	
7	FC 29	C	635.92	640.25	4.33	SS	DRK GRY MGR SHS		0	
8	FC 29	C	640.25	640.67	.42	SH	DRK SDY		0	
9	FC 29	C	640.67	642.92	2.25	SH	CRB		0	
10	FC 29	C	642.92	644.83	1.91	CO		K	1	
11	FC 29	C	644.83	645.25	.42	SH	CRB		0	
12	FC 29	C	645.25	646.42	1.17	SH	SFT SDY		0	
13	FC 29	C	646.42	647.67	1.25	CO		K	3	
14	FC 29	C	647.67	648.25	.58	SH	CRB		0	
15	FC 29	C	648.25	651.83	3.58	SH	DRK SDY		0	
16	FC 29	C	651.83	656.00	4.17	SS	DRK GRY MGR		0	
17	FC 29	C	656.00	658.00	2.00	SH	DRK SDY COS		0	
18	FC 29	C	658.00	658.25	.25	SH	CRB		0	
19	FC 29	C	658.25	661.83	3.58	CO		UI	0	
20	FC 29	C	661.83	662.00	.17	BO			0	
21	FC 29	C	662.00	667.25	5.25	CO		LI	1	
22	FC 29	C	667.25	667.33	.08	SH	CRB		0	
23	FC 29	C	667.33	668.83	1.50	SH	DRK		0	
24	FC 29	C	668.83	669.08	.25	SH	CRB		0	
25	FC 29	C	669.08	670.58	1.50	SH	DRK		0	
26	FC 29	C	670.58	675.33	4.75	SS	LIT GRY FGR SHS		0	
27	FC 29	C	675.33	677.25	1.92	SH	DRK		0	
28	FC 29	C	677.25	679.58	2.33	SS	GRY FGR COS		0	
29	FC 29	C	679.58	680.83	1.25	SH	CRB		0	
30	FC 29	C	680.83	688.17	7.34	CO		LI	5	
31	FC 29	C	688.17	688.50	.33	SH	CRB		0	
32	FC 29	C	688.50	693.58	5.08	SH	DRK		0	
33	FC 29	C	693.58	696.17	2.59	SS	GRY CGR		0	
34	FC 29	C	696.17	704.67	8.50	SH	DRK		0	
35	FC 29	C	704.67	723.58	18.91	SS	GRY MGR		0	
36	FC 29	C	723.58	730.25	6.67	SH	DRK		0	

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
37	FC 29	C	730.25	730.67	.42	SH	CRB		0	
38	FC 29	C	730.67	731.17	.50	CO		G	0	
39	FC 29	C	731.17	731.42	.25	SS	GRY FGR	G	0	
40	FC 29	C	731.42	736.00	4.58	CO		G	0	
41	FC 29	C	736.00	736.42	.42	SH	CRB		0	
42	FC 29	C	736.42	737.67	1.25	SS	GRY FGR		0	
43	FC 29	C	737.67	748.83	11.16	SH	DRK		0	
44	FC 29	C	748.83	757.75	8.92	SS	GRY MGR COS		0	
45	FC 29	C	757.75	757.92	.17	SH	DRK		0	
46	FC 29	C	757.92	758.08	.16	SS	LIT GRY MGR		0	
47	FC 29	C	758.08	759.67	1.59	SH	DRK		0	
48	FC 29	C	759.67	760.67	1.00	SH	CRB		0	
49	FC 29	C	760.67	764.75	4.08	SS	GRY CGR		0	
50	FC 29	C	764.75	765.42	.67	SH	DRK		0	
51	FC 29	C	765.42	768.00	2.58	SH	CRB		0	
52	FC 29	C	768.00	770.42	2.42	CO		D	0	
53	FC 29	C	770.42	770.67	.25	BO			0	
54	FC 29	C	770.67	770.83	.16	SH	SFT		0	
55	FC 29	C	770.83	771.17	.34	BO		C	0	
56	FC 29	C	771.17	772.58	1.41	CO		C	0	
57	FC 29	C	772.58	772.67	.09	BO		C	0	
58	FC 29	C	772.67	775.42	2.75	CO	BNY	C	0	
59	FC 29	C	775.42	775.50	.08	SH		C	0	
60	FC 29	C	775.50	775.67	.17	BO		C	0	
61	FC 29	C	775.67	777.42	1.75	CO		C	0	
62	FC 29	C	777.42	777.50	.08	SH	CRB		0	
63	FC 29	C	777.50	779.42	1.92	SH	DRK		0	
64	FC 29	C	779.42	780.33	.91	SS	GRY MGR		0	
65	FC 29	C	780.33	782.00	1.67	SH	DRK SDY		0	
66	FC 29	C	782.00	782.50	.50	SH	SFT		0	
67	FC 29	C	782.50	783.42	.92	SH	DRK SDY		0	
68	FC 29	C	783.42	784.00	.58	SS	GRY MGR SHS		0	
69	FC 29	C	784.00	784.92	.92	SH	DRK SDY		0	
70	FC 29	C	784.92	785.50	.58	SH	CRB		0	
71	FC 29	C	785.50	786.58	1.08	SH	DRK		0	
72	FC 29	C	786.58	787.33	.75	SS	GRY MGR		0	
73	FC 29	C	787.33	790.33	3 00	SH	DRK SDY		0	
74	FC 29	C	790.33	792.50	2.17	SH	CRB		0	
75	FC 29	C	792.50	792.58	.08	CO			0	
76	FC 29	C	792.58	798.58	6.00	SS	GRY MGR		0	
77	FC 29	C	798.58	801.67	3.09	SS	GRY MGR SHS		0	
78	FC 29	C	801.67	815.92	14.25	SH	DRK GRY		0	
79	FC 29	C	815.92	827.92	12.00	SS	GRY MGR SHS		0	
80	FC 29	C	827.92	829.17	1.25	SS	GRY CGR		0	
81	FC 29	C	829.17	835.75	6.58	SS	GRY MGR SHS		0	
82	FC 29	C	835.75	838.33	2.58	SS	GRY MGR SHS		0	
83	FC 29	C	838.33	839.00	.67	SH	DRK SDY		0	
84	FC 29	C	839.00	841.67	2.67	SS	GRY MGR		0	
85	FC 29	C	841.67	844.08	2.41	SH	DRK SDY		0	
86	FC 29	C	844.08	875.67	31.59	SS	GRY MGR		0	
87	FC 29	C	875.67	891.83	16.16	SS	GRY MGR SHS		0	

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
88	FC 29	C	891.83	892.75	.92	SH	DRK SDY	BH	0	

				SEAM CODE	SAMP NO	SAMPLE DEPTH FROM	TO	ANALYSIS CODE	PROXIMATE ANALYSIS %MOIS	%VOL	%CARB	%ASH	%SUL	BTU	EQUIL. MOIST	F P
1	FC 29		D	I	1	657.90	667.25	85	2.3	40.8	50.4	6.5	.70	13230	.00	F
2	FC 29		D	I	1	657.90	667.25	82	.0	41.7	51.6	6.7	.72	13540	.00	F
3	FC 29		D	I	1	657.90	667.25	83	.0	44.7	55.3	.0	.00	14510	.00	F
4	FC 29		D	I	2	680.67	688.17	85	2.3	39.6	52.7	5.4	.78	13460	.00	F
5	FC 29		D	I	2	680.67	688.17	82	.0	40.5	54.0	5.5	.80	13780	.00	F
6	FC 29		D	I	2	680.67	688.17	83	.0	42.9	57.1	.0	.00	14580	.00	F
7	FC 29		D	G	3	730.18	736.00	85	2.0	42.5	47.0	8.5	1.67	12990	.00	F
8	FC 29		D	G	3	730.18	736.00	82	.0	43.3	48.0	8.7	1.70	13260	.00	F
9	FC 29		D	LJ	2	351.00	354.00	1	4.6	.0	.0	8.4	1.92	12517	.00	
10	FC 29		D	CD	4	768.30	777.50	85	2.2	40.2	47.2	10.4	.81	12690	.00	F
11	FC 29		D	CD	4	768.30	777.50	82	.0	41.1	48.3	10.6	.83	12980	.00	F
12	FC 29		D	CD	4	768.30	777.50	83	.0	46.0	54.0	.0	.00	14520	.00	F

				SEAM CODE	SAMP NO	ULTIMATE ANALYSIS C	H2	N	CL	O2	FSI	GRINDABILITY	ASH SOFTENING TEMP. A	B	C	D
1	FC 29		E	I	1	.0	.0	.0	.0	.0	.0	.0	2250	0	0	0
2	FC 29		E	I	2	.0	.0	.0	.0	.0	.0	.0	2170	0	0	0
3	FC 29		E	G	3	.0	.0	.0	.0	.0	.0	.0	2190	0	0	0
4	FC 29		E	CD	4	.0	.0	.0	.0	.0	.0	.0	2580	0	0	0

				SEAM CODE	SAMP NO	SP GR	TYPE CODE	FLOAT SINK DATA % WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE
1	FC 29		G	I	1	000130	DF	4880	.00	3.20	.59	0	0000
2	FC 29		G	I	1	000140	DF	8320	.00	5.10	.58	0	0000
3	FC 29		G	I	1	000160	DF	9210	.00	6.60	.72	0	0000
4	FC 29		G	I	1	RAW000	DF	0000	.00	10.40	.81	0	0000
5	FC 29		G	I	2	000130	DF	4230	.00	2.80	.77	0	0000
6	FC 29		G	I	2	000140	DF	9090	.00	4.40	.79	0	0000
7	FC 29		G	I	2	000160	DF	9850	.00	5.40	.83	0	0000
8	FC 29		G	I	2	RAW000	DF	0000	.00	6.10	.85	0	0000
9	FC 29		G	G	3	000130	DF	3810	.00	3.70	1.27	0	0000
10	FC 29		G	G	3	000140	DF	7370	.00	6.10	1.49	0	0000
11	FC 29		G	G	3	000160	DF	8580	.00	8.60	1.73	0	0000
12	FC 29		G	G	3	RAW000	DF	0000	.00	16.40	2.00	0	0000
13	FC 29		G	CD	4	000130	DF	2650	.00	4.60	.85	0	0000
14	FC 29		G	CD	4	000140	DF	6100	.00	7.30	.84	0	0000
15	FC 29		G	CD	4	000160	DF	7560	.00	10.40	.84	0	0000
16	FC 29		G	CD	4	RAW000	DF	0000	.00	25.20	.98	0	0000

SEQ NO = 1 DRILL HOLE NO = FC 30 FORMAT = A STATE = 43 COUNTY = 015 TWP = 23S RANGE = 6E SECTION = 05

SECTION CODE = H2 SURFACE ELEV. = 6096.62 HOW DET. = 3

N-COORD = 188459 E-COORD = 2067486 SOURCE = 2 LOCATION = 2

THK CORED = 400.25 THK N-CORED = 21.00 USGS = WALKER FLAT SZE.CD. = 1

SEQ NO. = 2 DRILL HOLE NO = FC 30 FORMAT = B PROPERTY OR FARM = DRILLER = LAUGHLIN OD

DRILL CONTR = JOY DATE DRILLED = 0165

TWP OR PLACE = STRIP 2 COMMENTS = CEMENT

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 30	C	.00	21.00	21.00	SM			0	
4	FC 30	C	21.00	26.33	5.33	SS	LIT MGR SHS WEA		0	
5	FC 30	C	26.33	59.00	32.67	SS	LIT CGR		0	
6	FC 30	C	59.00	63.58	4.58	SS	LIT MGR SHL CRB		0	
7	FC 30	C	63.58	64.08	.50	SH	GRY		0	
8	FC 30	C	64.08	65.83	1.75	SS	GRY MGR SHL		0	
9	FC 30	C	65.83	66.92	1.09	SS	GRY SHL		0	
10	FC 30	C	66.92	72.92	6.00	SS	GRY MGR		0	
11	FC 30	C	72.92	85.33	12.41	SS	GRY MGR CGR		0	
12	FC 30	C	85.33	105.25	19.92	SS	GRY MGR SHL		0	
13	FC 30	C	105.25	110.39	5.14	SS	GRY MGR		0	
14	FC 30	C	110.39	111.50	1.11	CO	BNY	J	0	
15	FC 30	C	111.50	112.58	1.08	CL	GRY		0	
16	FC 30	C	112.58	112.92	.34	CL	DRK GRY		0	
17	FC 30	C	112.92	117.83	4.91	CO	PYT	UI	0	
18	FC 30	C	117.83	118.92	1.09	BO	SHY		0	
19	FC 30	C	118.92	124.67	5.75	SH	DRK GRY		0	
20	FC 30	C	124.67	126.33	1.66	SS	LIT GRY FGR SHL		0	
21	FC 30	C	126.33	140.00	13.67	SH	DRK GRY SSE		0	
22	FC 30	C	140.00	141.58	1.58	SS	GRY MGR SHL		0	
23	FC 30	C	141.58	153.83	12.25	SS	GRY MGR CGR		0	
24	FC 30	C	153.83	157.17	3.34	CO	BNY	LI	1	
25	FC 30	C	157.17	157.83	.66	BO		LI	1	
26	FC 30	C	157.83	160.67	2.84	CO		LI	1	
27	FC 30	C	160.67	160.92	.25	BO		LI	1	
28	FC 30	C	160.92	161.92	1.00	CO		LI	1	
29	FC 30	C	161.92	162.00	.08	BO			0	
30	FC 30	C	162.00	165.42	3.42	CO	BNY	LI	5	
31	FC 30	C	165.42	165.75	.33	BO	SHY		0	
32	FC 30	C	165.75	166.75	1.00	SS	LIT GRY FGR SHL		0	
33	FC 30	C	166.75	185.58	18.83	SS	GRY MGR PYT		0	
34	FC 30	C	185.58	195.58	10.00	SS	GRY CGR		0	
35	FC 30	C	195.58	212.25	16.67	SH	DRK GRY SFT		0	
36	FC 30	C	212.25	225.83	13.58	SS	LIT GRY FGR SHL		0	

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
37	FC 30	C	225.83	232.50	6.67	SS	GRY CGR CRB		0	
38	FC 30	C	232.50	236.33	3.83	SS	GRY MGR		0	
39	FC 30	C	236.33	244.17	7.84	SS	GRY CGR		0	
40	FC 30	C	244.17	246.33	2.16	SS	GRY MGR		0	
41	FC 30	C	246.33	248.00	1.67	SS	GRY MGR COL SHL		0	
42	FC 30	C	248.00	248.33	.33	CO	BNY	G	0	
43	FC 30	C	248.33	248.58	.25	ST	GRY LAM	G	0	
44	FC 30	C	248.58	252.50	3.92	CO		G	0	
45	FC 30	C	252.50	252.75	.25	BO			0	
46	FC 30	C	252.75	256.25	3.50	SS	GRY MGR		0	
47	FC 30	C	256.25	256.58	.33	BO			0	
48	FC 30	C	256.58	258.08	1.50	SH	DRK GRY SFT		0	
49	FC 30	C	258.08	259.00	.92	SH	DRK GRY		0	
50	FC 30	C	259.00	260.25	1.25	CO	BNY		0	
51	FC 30	C	260.25	262.50	2.25	SH	DRK GRY		0	
52	FC 30	C	262.50	263.92	1.42	SS	GRY MGR SHL		0	
53	FC 30	C	263.92	275.83	11.91	SH	DRK GRY FSL		0	
54	FC 30	C	275.83	278.17	2.34	SS	GRY MGR SHL DRK		0	
55	FC 30	C	278.17	281.58	3.41	CO	BNY	D	0	
56	FC 30	C	281.58	283.08	1.50	BO	SLY		0	
57	FC 30	C	283.08	285.08	2.00	CO		C	0	
58	FC 30	C	285.08	285.33	.25	BO	SHL	C	0	
59	FC 30	C	285.33	286.00	.67	CO		C	0	
60	FC 30	C	286.00	286.17	.17	BO	SHS	C	0	
61	FC 30	C	286.17	287.83	1.66	CO		C	0	
62	FC 30	C	287.83	288.00	.17	BO		C	0	
63	FC 30	C	288.00	289.83	1.83	CO		C	0	
64	FC 30	C	289.83	290.08	.25	SH	CRB		0	
65	FC 30	C	290.08	290.92	.84	SH	SFT		0	
66	FC 30	C	290.92	292.92	2.00	SS	LIT GRY SHS		0	
67	FC 30	C	292.92	297.92	5.00	SH	DRK SFT		0	
68	FC 30	C	297.92	312.17	14.25	SH	SSE		0	
69	FC 30	C	312.17	312.17	.00	CO	EXH	A	0	
70	FC 30	C	312.17	313.50	1.33	SS	LIT GRY MGR		0	
71	FC 30	C	313.50	315.75	2.25	SS	DRK GRY MGR SHS		0	
72	FC 30	C	315.75	318.08	2.33	SS	LIT GRY FGR SHS		0	
73	FC 30	C	318.08	324.92	6.84	SS	DRK GRY MGR SHS		0	
74	FC 30	C	324.92	332.58	7.66	SH	SSE FGR		0	
75	FC 30	C	332.58	342.00	9.42	SH	DRK SSE MGR		0	
76	FC 30	C	342.00	345.08	3.08	SS	DRK GRY MGR SHS		0	
77	FC 30	C	345.08	350.50	5.42	SS	GRY MGR SHL COL		0	
78	FC 30	C	350.50	353.83	3.33	SH	DRK GRY SSE PYT		0	
79	FC 30	C	353.83	355.67	1.84	SS	LIT GRY FGR SHL		0	
80	FC 30	C	355.67	360.17	4.50	SS	LIT GRY FGR SHY		0	
81	FC 30	C	360.17	360.83	.66	SH	GRY SFT PYT		0	
82	FC 30	C	360.83	399.08	38.25	SS	LIT GRY FGR		0	
83	FC 30	C	399.08	419.33	20.25	SS	LIT GRY FGR SHL		0	
84	FC 30	C	419.33	421.25	1.92	SH	DRK GRY BH		0	

				SEAM CODE	SAMP NO	SAMPLE DEPTH FROM	TO	ANALYSIS CODE	PROXIMATE ANALYSIS %MOIS	%VOL	%CARB	%ASH	%SUL	BTU	EQUIL. MOIST	F P
1	FC	30	D	J	1	110.39	117.83	85	2.9	43.1	45.1	8.9	2.40	12630	.00	F
2	FC	30	D	J	1	110.39	117.83	82	.0	44.4	46.4	9.2	2.47	13010	.00	F
3	FC	30	D	J	1	110.39	117.83	83	.0	48.9	51.1	.0	.00	14330	.00	F
4	FC	30	D	I	2	157.78	161.75	85	3.3	39.6	49.9	7.2	.48	12880	.00	F
5	FC	30	D	I	2	157.78	161.75	82	.0	41.0	51.6	7.4	.50	13320	.00	F
6	FC	30	D	I	2	157.78	161.75	83	.0	44.3	55.7	.0	.00	14380	.00	F
7	FC	30	D	I	3	161.75	165.42	85	3.2	39.8	48.9	8.1	.53	12790	.00	F
8	FC	30	D	I	3	161.75	165.42	82	.0	41.1	50.5	8.4	.55	13210	.00	F
9	FC	30	D	I	3	161.75	165.42	83	.0	44.9	55.1	.0	.00	14420	.00	F
10	FC	30	D	G	4	247.75	252.50	85	3.0	41.7	45.5	9.8	1.77	12600	.00	F
11	FC	30	D	G	4	247.75	252.50	82	.0	43.0	46.9	10.1	1.82	12990	.00	F
12	FC	30	D	G	4	247.75	252.50	83	.0	47.8	52.2	.0	.00	14450	.00	F
13	FC	30	D	CD	5	277.91	281.58	85	3.1	39.7	47.0	10.2	.79	12490	.00	F
14	FC	30	D	CD	5	277.91	281.58	82	.0	41.0	48.5	10.5	.82	12890	.00	F
15	FC	30	D	CD	5	277.91	281.58	83	.0	45.8	54.2	.0	.00	14400	.00	F
16	FC	30	D	CD	6	283.03	289.83	85	2.8	41.2	47.3	8.7	.65	12730	.00	F
17	FC	30	D	CD	6	283.03	289.83	82	.0	42.4	48.6	9.0	.67	13100	.00	F
18	FC	30	D	CD	6	283.03	289.83	83	.0	46.6	53.4	.0	.00	14400	.00	F

				SEAM CODE	SAMP NO	ULTIMATE ANALYSIS C	H2	N	CL	O2	FSI	GRINDABILITY	ASH SOFTENING TEMP. A	B	C	D
1	FC	30	E	J	1	.0	.0	.0	.0	.0	.0	.0	2520	0	0	0
2	FC	30	E	I	2	.0	.0	.0	.0	.0	.0	.0	2190	0	0	0
3	FC	30	E	I	3	.0	.0	.0	.0	.0	.0	.0	2520	0	0	0
4	FC	30	E	G	4	.0	.0	.0	.0	.0	.0	.0	2460	0	0	0
5	FC	30	E	CD	5	.0	.0	.0	.0	.0	.0	.0	2630	0	0	0
6	FC	30	E	CD	6	.0	.0	.0	.0	.0	.0	.0	2470	0	0	0

				SEAM CODE	SAMP NO	SP GR	TYPE CODE	FLOAT SINK DATA % WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE
1	FC	30	G	J	1	000130I	DF	1390	.00	3.50	1.78	0	0000
2	FC	30	G	J	1	000140I	DF	5830	.00	6.90	2.07	0	0000
3	FC	30	G	J	1	000160I	DF	6980	.00	9.30	2.51	0	0000
4	FC	30	G	J	1	RAW000	DF	0000	.00	2.90	2.91	0	0000
5	FC	30	G	I	2	000130I	DF	3810	.00	2.60	.55	0	0000
6	FC	30	G	I	2	000140I	DF	7640	.00	4.90	.53	0	0000
7	FC	30	G	I	2	000160I	DF	8910	.00	8.40	.53	0	0000
8	FC	30	G	I	2	RAW000	DF	0000	.00	19.10	.60	0	0000
9	FC	30	G	I	3	000130I	DF	3810	.00	3.10	.54	0	0000
10	FC	30	G	I	3	000140I	DF	7640	.00	5.10	.51	0	0000
11	FC	30	G	I	3	000160I	DF	8910	.00	7.10	.50	0	0000
12	FC	30	G	I	3	RAW000	DF	0000	.00	9.30	.49	0	0000
13	FC	30	G	G	4	000130I	DF	3430	.00	3.60	1.15	0	0000
14	FC	30	G	G	4	000140I	DF	7290	.00	6.70	1.52	0	0000
15	FC	30	G	G	4	000160I	DF	8760	.00	9.90	1.79	0	0000
16	FC	30	G	G	4	RAW000	DF	0000	.00	17.70	1.84	0	0000
17	FC	30	G	CD	5	000130I	DF	2390	.00	3.20	.78	0	0000

								FLOAT SINK DATA					
				SEAM CODE	SAMP NO	SP GR	TYPE CODE	% WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE
18	FC	30	G	CD	5	000140	DF	6730	.00	6.40	.83	0	0000
19	FC	30	G	CD	5	000160	DF	8880	.00	10.30	.79	0	0000
20	FC	30	G	CD	5	RAW000	DF	0000	.00	14.30	.77	0	0000
21	FC	30	G	CD	6	000130	DF	2970	.00	3.70	.67	0	0000
22	FC	30	G	CD	6	000140	DF	6780	.00	6.20	.65	0	0000
23	FC	30	G	CD	6	000160	DF	8030	.00	9.00	.65	0	0000
24	FC	30	G	CD	6	RAW000	DF	0000	.00	20.10	.58	0	0000

SEQ NO = 1 DRILL HOLE NO = FC 48 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 29

SECTION CODE = A3 SURFACE ELEV. = 5955.33 HOW DET. = 6

N-COORD = 194226 E-COORD = 2066688 SOURCE = 2 LOCATION = 2

THK CORED = .00 THK N-CORED = .00 USGS = EMERY WEST SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 48 FORMAT = B PROPERTY OR FARM = DRILLER = GILLAND L

DRILL CONTR = CONSOL DATE DRILLED = 0369

TWP OR PLACE = EMERY COMMENTS = CEMENT

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 48	C	.00	4.00	4.00	SM			0	
4	FC 48	C	4.00	15.00	11.00	SN			0	
5	FC 48	C	15.00	20.00	5.00	SH	GRY		0	
6	FC 48	C	20.00	53.00	33.00	SH	BLK		0	
7	FC 48	C	53.00	58.20	5.20	SH	BLK SDY		0	
8	FC 48	C	58.20	58.50	.30	LS			0	
9	FC 48	C	58.50	60.20	1.70	SH	BLK SDY		0	
10	FC 48	C	60.20	60.30	.10	LS			0	
11	FC 48	C	60.30	91.00	30.70	SH	BLK SDY		0	
12	FC 48	C	91.00	147.00	56.00	SH	DRK GRY		0	
13	FC 48	C	147.00	156.00	9.00	SH	BLK SDY		0	
14	FC 48	C	156.00	198.30	42.30	SS	GRY		0	
15	FC 48	C	198.30	198.50	.20	SH	BLK		0	
16	FC 48	C	198.50	201.30	2.80	SS	GRY		0	
17	FC 48	C	201.30	203.90	2.60	SS	GRY SHS		0	
18	FC 48	C	203.90	277.40	73.50	SS	GRY		0	
19	FC 48	C	277.30	278.70	1.40	SH	DRK GRY CRB COP		0	
20	FC 48	C	278.70	281.70	3.00	SH	DRK GRY HRD		0	
21	FC 48	C	281.70	283.70	2.00	SH	DRK GRY COP		0	
22	FC 48	C	283.70	283.90	.20	CO	SHY	J	0	
23	FC 48	C	283.90	285.40	1.50	BO			0	
24	FC 48	C	285.40	285.84	.44	SH	DRK GRY COI		0	
25	FC 48	C	285.84	288.89	3.05	CO		UI	0	
26	FC 48	C	288.89	288.90	.01	SH		UI	0	
27	FC 48	C	288.90	290.70	1.80	CO		UI	0	
28	FC 48	C	290.70	290.73	.03	BO		UI	0	
29	FC 48	C	290.73	292.60	1.87	CO		UI	0	
30	FC 48	C	292.60	292.70	.10	SH			0	
31	FC 48	C	292.70	307.00	14.30	CO		LI	0	
32	FC 48	C	307.00	307.30	.30	SH	BLK HRD COV		0	
33	FC 48	C	307.30	309.90	2.60	SH	MED GRY SLK		0	
34	FC 48	C	309.90	310.50	.60	ST	LIT GRY		0	
35	FC 48	C	310.50	314.70	4.20	SH	MED GRY		0	
36	FC 48	C	314.70	316.50	1.80	ST	LIT GRY BH		0	

1	FC	48	D	IJ	1	285.84	288.89	81	3.6	39.2	47.3	9.9	1.38	12520	.00	F
2	FC	48	D	IJ	1	285.84	288.89	85	3.3	39.3	47.5	9.9	1.38	12560	.00	F
3	FC	48	D	IJ	1	285.84	288.89	82	.0	40.6	49.1	10.3	1.43	12990	.00	F
4	FC	48	D	IJ	1	285.84	288.89	83	80.0	45.3	54.7	.0	.00	14480	.00	F
5	FC	48	D	IJ	2	288.89	292.70	81	3.4	40.4	44.7	11.5	1.35	12270	.00	F
6	FC	48	D	IJ	2	288.89	292.70	85	3.1	40.5	44.9	11.5	1.36	12310	.00	F
7	FC	48	D	IJ	2	288.89	292.70	82	.0	41.8	46.3	11.9	1.40	12700	.00	F
8	FC	48	D	IJ	2	288.89	292.70	83	.0	47.5	52.5	.0	.00	14420	.00	F
9	FC	48	D	IJ	3	292.70	307.00	81	3.7	39.3	49.3	7.7	.98	12850	.00	F
10	FC	48	D	IJ	3	292.70	307.00	85	3.2	39.5	49.6	7.7	.99	12910	.00	F
11	FC	48	D	IJ	3	292.70	307.00	82	.0	40.8	51.2	8.0	1.02	13340	.00	F
12	FC	48	D	IJ	3	292.70	307.00	83	.0	44.4	55.6	.0	.00	14500	.00	F

				SEAM CODE	SAMP NO	ULTIMATE ANALYSIS C	H2	N	CL	O2	FSI	GRINDABILITY	ASH SOFTENING TEMP. A	B	C	D
1	FC	48	E	IJ	1	.0	.0	.0	.0	.0	.0	.0	2180	0	0	0
2	FC	48	E	IJ	2	.0	.0	.0	.0	.0	.0	.0	2480	0	0	0
3	FC	48	E	IJ	3	.0	.0	.0	.0	.0	.0	.0	2130	0	0	0

				SEAM CODE	SAMP NO	ASH ANALYSIS SIO2	AL2O3	FE2O3	TIO2	P2O5	CAO	MGO	NA2O	K2O	SO3
1	FC	48	F	IJ	1	53.90	15.57	4.75	1.18	.00	8.54	1.75	1.67	.13	10.51
2	FC	48	F	IJ	2	39.80	26.55	5.07	1.18	.00	10.66	1.57	1.65	.19	9.26
3	FC	48	F	IJ	3	39.84	17.71	9.42	.90	.00	9.05	3.05	2.55	.13	12.12

				SEAM CODE	SAMP NO	SP GR	TYPE CODE	FLOAT SINK DATA % WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE
1	FC	48	G	IJ	1	RAW000	DF	0000	.00	10.20	1.43	0	0000
2	FC	48	G	IJ	2	RAW000	DF	0000	.00	11.90	1.40	0	0000
3	FC	48	G	IJ	3	RAW000	DF	0000	.00	8.00	1.20	0	0000

SEQ NO = 1 DRILL HOLE NO = FC 49 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 32

SECTION CODE = G5 SURFACE ELEV. = 5945.25 HOW DET. = 6

N-COORD = 193310 E-COORD = 2065380 SOURCE = 2 LOCATION = 2

THK CORED = .00 THK N-CORED = .00 USGS = ACORD LAKES SZE.CD. = 1

SEQ NO. = 2 DRILL HOLE NO = FC 49 FORMAT = B PROPERTY OR FARM = DRILLER = GILLAND L

DRILL CONTR = CONSOL DATE DRILLED = 0469

TWP OR PLACE = EMERY COMMENTS = CEMENT

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 49	C	.00	42.00	42.00	SS	GRY SFT		0	
4	FC 49	C	42.00	125.00	83.00	SH	GRY		0	
5	FC 49	C	125.00	143.00	18.00	SH	BLK SDY		0	
6	FC 49	C	143.00	168.00	25.00	SS	GRY	TF	0	
7	FC 49	C	168.00	180.00	12.00	SH	BLK SDY		0	
8	FC 49	C	180.00	277.00	97.00	SS	GRY		0	
9	FC 49	C	277.00	277.70	.70	CO			0	
10	FC 49	C	277.70	283.20	5.50	SH	SDY		0	
11	FC 49	C	283.20	284.60	1.40	CO		J	0	
12	FC 49	C	284.60	290.60	6.00	SH	GRY SDY		0	
13	FC 49	C	290.60	311.20	20.60	CO		IJ	0	
14	FC 49	C	311.20	313.10	1.90	SH	GRY SSE		0	
15	FC 49	C	313.10	314.20	1.10	SS	GRY		0	
16	FC 49	C	314.20	321.10	6.90	SH	BLK SDY BH		0	
17	FC 49	C	280.60	281.50	.90	SS	FGR SHS		0	
18	FC 49	C	281.50	282.70	1.20	SH	MED GRY		0	
19	FC 49	C	282.70	283.90	1.20	BO		J	0	
20	FC 49	C	283.90	284.60	.70	SH	DRK GRY CRB COV		0	
21	FC 49	C	284.60	287.80	3.20	ST	DRK GRY SDY FGR		0	
22	FC 49	C	287.80	288.30	.50	SS	FGR LIT GRY SHS		0	
23	FC 49	C	288.30	288.60	.30	SH	DRK GRY		0	
24	FC 49	C	288.60	288.90	.30	SS	FGR LIT GRY SHY		0	
25	FC 49	C	288.90	289.60	.70	SH	BLK		0	
26	FC 49	C	289.60	289.92	.32	SS	FGR SHL		0	
27	FC 49	C	289.92	295.13	5.21	CO		UI	0	
28	FC 49	C	295.13	295.15	.02	SH		UI	0	
29	FC 49	C	295.15	296.79	1.64	CO		UI	0	
30	FC 49	C	296.79	296.83	.04	SH			0	
31	FC 49	C	296.83	297.05	.22	CO			0	
32	FC 49	C	297.05	297.30	.25	BO			0	
33	FC 49	C	297.30	300.52	3.22	CO		LI	1	
34	FC 49	C	300.52	300.57	.05	SH		LI	1	
35	FC 49	C	300.57	300.92	.35	CO		LI	1	
36	FC 49	C	300.92	300.93	.01	SH		LI	1	

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
37	FC 49	C	300.93	305.79	4.86	CO		LI	1	
38	FC 49	C	305.79	305.87	.08	SH			0	
39	FC 49	C	305.87	311.20	5.33	CO		LI	5	
40	FC 49	C	311.20	311.60	.40	BO			0	
41	FC 49	C	311.60	314.20	2.60	SH	DRK GRY HRD		0	
42	FC 49	C	314.20	318.60	4.40	SH	DRK GRY FRB SFT		0	
43	FC 49	C	318.60	321.10	2.50	SH	BLK HRD COL		0	

			SEAM CODE	SAMP NO	SAMPLE DEPTH FROM	TO	ANALYSIS CODE	PROXIMATE ANALYSIS %MOIS	%VOL	%CARB	%ASH	%SUL	BTU	EQUIL. MOIST	F P
1	FC 49	D	IJ	1	289.92	295.13	81	3.5	40.0	48.9	7.6	2.75	12820	.00	F
2	FC 49	D	IJ	1	289.92	295.13	85	3.4	40.0	49.0	7.6	2.75	12830	.00	F
3	FC 49	D	IJ	1	289.92	295.13	82	.0	41.4	50.7	7.9	2.85	13280	.00	F
4	FC 49	D	IJ	1	289.92	295.13	83	.0	45.0	55.0	.0	.00	14420	.00	F
5	FC 49	D	IJ	2	295.13	305.67	81	3.2	40.5	46.3	10.0	.58	12480	.00	F
6	FC 49	D	IJ	2	295.13	305.67	85	3.3	40.4	46.2	10.1	.58	12460	.00	F
7	FC 49	D	IJ	2	295.13	305.67	82	.0	41.8	47.8	10.4	.60	12890	.00	F
8	FC 49	D	IJ	2	295.13	305.67	83	.0	46.7	53.3	.0	.00	14390	.00	F
9	FC 49	D	IJ	3	305.80	311.17	81	3.5	39.1	49.4	8.0	.65	12770	.00	F
10	FC 49	D	IJ	3	305.80	311.17	85	3.5	39.1	49.4	8.0	.65	12770	.00	F
11	FC 49	D	IJ	3	305.80	311.17	82	.0	40.5	51.2	8.3	.67	13230	.00	F
12	FC 49	D	IJ	3	305.80	311.17	83	.0	44.2	55.8	.0	.00	14430	.00	F

			SEAM CODE	SAMP NO	ULTIMATE ANALYSIS C	H2	N	CL	O2	FSI	GRINDABILITY	ASH SOFTENING TEMP. A	B	C	D
1	FC 49	E	IJ	1	.0	.0	.0	.0	.0	.0	.0	2110	0	0	0
2	FC 49	E	IJ	2	.0	.0	.0	.0	.0	.0	.0	2420	0	0	0
3	FC 49	E	IJ	3	.0	.0	.0	.0	.0	.0	.0	2380	0	0	0

			SEAM CODE	SAMP NO	ASH ANALYSIS SIO2	AL2O3	FE2O3	TIO2	P2O5	CAO	MGO	NA2O	K2O	SO3
1	FC 49	F	IJ	1	28.72	13.55	31.52	1.10	.00	6.86	1.99	2.18	.10	11.18
2	FC 49	F	IJ	2	42.07	23.15	6.20	.80	.00	14.71	3.34	2.05	.26	7.23
3	FC 49	F	IJ	3	52.40	22.70	6.16	1.19	.00	5.21	2.23	2.19	.35	6.70

			SEAM CODE	SAMP NO	SP GR	TYPE CODE	FLOAT SINK DATA % WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE
1	FC 49	G	IJ	1	RAW000	DF	0000	.00	7.90	2.85	0	0000
2	FC 49	G	IJ	2	RAW000	DF	0000	.00	10.40	.60	0	0000
3	FC 49	G	IJ	3	RAW000	DF	0000	.00	8.30	.67	0	0000

SEQ NO = 1 DRILL HOLE NO = FC 50 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 32

SECTION CODE = A5 SURFACE ELEV. = 5975.70 HOW DET. = 6

N-COORD = 189110 E-COORD = 2065280 SOURCE = 2 LOCATION = 2

THK CORED = .00 THK N-CORED = .00 USGS = ACORD LAKES SZE.CD. = 1

SEQ NO. = 2 DRILL HOLE NO = FC 50 FORMAT = B PROPERTY OR FARM = DRILLER = GILLAND L

DRILL CONTR = CONSOL DATE DRILLED = 0469

TWP OR PLACE = EMERY COMMENTS = CEMENT

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 50	C	.00	5.00	5.00	SM			0	
4	FC 50	C	5.00	50.00	45.00	SH	GRY SDY		0	
5	FC 50	C	50.00	108.00	58.00	SS	GRY		0	
6	FC 50	C	108.00	114.10	6.10	SH	GRY		0	
7	FC 50	C	114.10	115.60	1.50	CO		K	0	
8	FC 50	C	115.60	116.70	1.10	SH	DRK		0	
9	FC 50	C	116.70	119.40	2.70	SS	GRY		0	
10	FC 50	C	119.40	123.10	3.70	SH	SDY BLK		0	
11	FC 50	C	123.10	124.30	1.20	CO		J	1	RIDER
12	FC 50	C	124.30	128.70	4.40	SH	BLK SDY		0	
13	FC 50	C	128.70	130.50	1.80	CO		J	3	
14	FC 50	C	130.50	131.60	1.10	SH				
15	FC 50	C	131.60	138.20	6.60	CO		UI	0	
16	FC 50	C	138.20	146.00	7.80	SH	GRY		0	
17	FC 50	C	146.00	147.80	1.80	SH	SDY		0	
18	FC 50	C	147.80	148.30	.50	CO			0	RIDER
19	FC 50	C	148.30	149.30	1.00	SH	GRY		0	
20	FC 50	C	149.30	150.30	1.00	CO		LI	1	
21	FC 50	C	150.30	151.00	.70	SH	GRY	LI	1	
22	FC 50	C	151.00	157.60	6.60	CO		LI	1	
24	FC 50	C	157.60	158.80	1.20	SH	BLK		0	
25	FC 50	C	158.80	167.60	8.80	SS	HRD GRY		0	
26	FC 50	C	167.60	167.60	.00	CO	EXH	LI	5	
27	FC 50	C	167.60	189.10	21.50	SS			0	
28	FC 50	C	189.10	189.40	.30	CO			0	RIDER
29	FC 50	C	189.40	216.00	26.60	SH	BLK SSE		0	
30	FC 50	C	216.00	217.80	1.80	SS	GRY		0	
31	FC 50	C	217.80	219.00	1.20	SH	CRB		0	
32	FC 50	C	219.00	220.50	1.50	SH	SFT GRY		0	
33	FC 50	C	220.50	224.70	4.20	SS	GRY		0	
34	FC 50	C	224.70	226.00	1.30	SH	CRB		0	
35	FC 50	C	226.00	226.10	.10	SS			0	
36	FC 50	C	226.10	230.70	4.60	CO		G	0	
37	FC 50	C	230.70	232.30	1.60	SH	GRY		0	

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
38	FC 50	C	232.30	269.30	37.00	SS	GRY SHS		0	
39	FC 50	C	269.30	270.67	1.37	SH	CRB		0	
40	FC 50	C	270.67	285.00	14.33	SH	DRK GRY SDY		0	
41	FC 50	C	285.00	286.60	1.60	CO		D	0	
42	FC 50	C	286.60	288.40	1.80	SH	GRY	D	0	
43	FC 50	C	288.40	293.10	4.70	CO		C	0	
44	FC 50	C	293.10	293.20	.10	SH		C	0	
45	FC 50	C	293.20	294.80	1.60	CO		C	0	
46	FC 50	C	294.80	301.60	6.80	SH	GRY		0	
47	FC 50	C	301.60	301.80	.20	CO			0	
48	FC 50	C	301.80	302.30	.50	SH	CRB		0	
49	FC 50	C	302.30	307.70	5.40	SS	HRD GRY		0	
50	FC 50	C	307.70	308.40	.70	CO			0	
51	FC 50	C	308.40	312.00	3.60	SH	GRY		0	
52	FC 50	C	312.00	325.70	13.70	SS	GRY HRD		0	
53	FC 50	C	325.70	327.60	1.90	CO		A	0	
54	FC 50	C	327.60	349.60	22.00	SS	HRD SHS		0	
55	FC 50	C	349.60	349.90	.30	CO			0	
56	FC 50	C	349.90	414.00	64.10	SS	HRD GRY		0	
57	FC 50	C	414.00	419.30	5.30	SH	GRY SDY		0	
58	FC 50	C	419.30	420.40	1.10	CO			0	
59	FC 50	C	420.40	424.00	3.60	SH	CRB		0	
60	FC 50	C	424.00	454.00	30.00	SS	GRY BH		0	

			SEAM CODE	SAMP NO	SAMPLE DEPTH FROM	SAMPLE DEPTH TO	ANALYSIS CODE	PROXIMATE ANALYSIS %MOIS	%VOL	%CARB	%ASH	%SUL	BTU	EQUIL. MOIST	F P
1	FC 50	D	CD	1	288.47	294.80	85	3.7	38.8	48.3	9.2	.63	12550	.00	F
2	FC 50	D	CD	1	288.47	294.80	82	.0	40.3	50.2	9.5	.65	13030	.00	F
3	FC 50	D	CD	1	288.47	294.80	83	.0	44.5	55.5	.0	.00	14400	.00	F
4	FC 50	D	G	2	226.10	230.70	85	3.8	40.0	47.4	8.8	1.45	12580	.00	F
5	FC 50	D	G	2	226.10	230.70	82	.0	41.6	49.3	9.1	1.51	13080	.00	F
6	FC 50	D	G	2	226.10	230.70	83	.0	45.8	54.2	.0	.00	14390	.00	F
7	FC 50	D	I	3	149.08	157.60	85	4.2	38.9	48.7	8.2	1.54	12580	.00	F
8	FC 50	D	I	3	149.08	157.60	82	.0	40.6	50.8	8.6	1.61	13130	.00	F
9	FC 50	D	I	3	149.08	157.60	83	.0	44.4	55.6	.0	.00	14370	.00	F
10	FC 50	D	J	4	129.20	138.05	85	4.0	40.0	49.0	7.0	.52	12790	.00	F
11	FC 50	D	J	4	129.20	138.05	82	.0	41.7	51.0	7.3	.54	13320	.00	F
12	FC 50	D	J	4	129.20	138.05	83	.0	45.0	55.0	.0	.00	14370	.00	F

			SEAM CODE	SAMP NO	ULTIMATE ANALYSIS C	H2	N	CL	O2	FSI	GRINDABILITY	ASH SOFTENING TEMP. A	B	C	D
1	FC 50	E	CD	1	.0	.0	.0	.0	.0	.0	.0	2410	0	0	0
2	FC 50	E	G	2	.0	.0	.0	.0	.0	.0	.0	2400	0	0	0
3	FC 50	E	I	3	.0	.0	.0	.0	.0	.0	.0	2420	0	0	0
4	FC 50	E	J	4	.0	.0	.0	.0	.0	.0	.0	2270	0	0	0

				SEAM CODE	SAMP NO	SIO2	AL2O3	FE2O3	TIO2	P2O5	CAO	MGO	NA2O	K2O	SO3
						ASH ANALYSIS									

				SEAM CODE	SAMP NO	SIO2	AL2O3	FE2O3	TIO2	P2O5	CAO	MGO	NA2O	K2O	SO3
						ASH ANALYSIS									
1	FC	50	F	CD	1	57.22	22.11	3.84	1.31	.00	5.48	2.09	1.13	.25	5.96
2	FC	50	F	G	2	49.44	22.07	9.89	1.31	.00	4.18	1.11	1.50	.43	5.13
3	FC	50	F	I	3	49.15	24.08	10.94	1.19	.00	3.82	1.20	1.40	.39	4.30
4	FC	50	F	J	4	52.57	21.45	9.97	1.15	.00	5.73	2.34	1.67	.26	5.98

				SEAM CODE	SAMP NO	SP GR	TYPE CODE	% WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE
							FLOAT SINK DATA						
1	FC	50	G	CD	1	000130	DF	1850	.00	3.20	.71	0	0000
2	FC	50	G	CD	1	000140	DF	7030	.00	6.70	.67	0	0000
3	FC	50	G	CD	1	000160	DF	8480	.00	9.40	.65	0	0000
4	FC	50	G	CD	1	RAW000	DF	0000	.00	17.50	.60	0	0000
5	FC	50	G	G	2	000130	DF	3040	.00	3.40	.93	0	0000
6	FC	50	G	G	2	000140	DF	7810	.00	6.20	1.21	0	0000
7	FC	50	G	G	2	000160	DF	9340	.00	9.10	1.48	0	0000
8	FC	50	G	G	2	RAW000	DF	0000	.00	11.40	1.80	0	0000
9	FC	50	G	I	3	000130	DF	2950	.00	2.80	1.07	0	0000
10	FC	50	G	I	3	000140	DF	6400	.00	6.30	1.44	0	0000
11	FC	50	G	I	3	000160	DF	7330	.00	8.30	1.59	0	0000
12	FC	50	G	I	3	RAW000	DF	0000	.00	18.10	1.40	0	0000
13	FC	50	G	J	4	000130	DF	3750	.00	3.20	.57	0	0000
14	FC	50	G	J	4	000140	DF	6970	.00	5.40	.54	0	0000
15	FC	50	G	J	4	000160	DF	7650	.00	7.10	.54	0	0000
16	FC	50	G	J	4	RAW000	DF	0000	.00	23.40	.43	0	0000

SEQ NO = 1 DRILL HOLE NO = FC 52 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 30

SECTION CODE = D5 SURFACE ELEV. = 6009.60 HOW DET. = 6

N-COORD = 196541 E-COORD = 2059992 SOURCE = 2 LOCATION = 1

THK CORED = .00 THK N-CORED = .00 USGS = WALKER FLAT SZE.CD. = 1

SEQ NO. = 2 DRILL HOLE NO = FC 52 FORMAT = B PROPERTY OR FARM = DRILLER = GILLAND L

DRILL CONTR = CONSOL DATE DRILLED = 0569

TWP OR PLACE = EMERY COMMENTS = CEMENT

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 52	C	.00	35.00	35.00	SM			0	
4	FC 52	C	35.00	46.00	11.00	SH	BRN		0	
5	FC 52	C	46.00	53.00	7.00	GR			0	
6	FC 52	C	53.00	337.00	284.00	SH	DRK GRY		0	
7	FC 52	C	337.00	354.00	17.00	SH	DRK SDY		0	
8	FC 52	C	354.00	403.00	49.00	SH	DRK		0	
9	FC 52	C	403.00	479.00	76.00	SH	BLK HRD SDY		0	
10	FC 52	C	479.00	555.00	76.00	SH	DRK GRY		0	
11	FC 52	C	555.00	598.00	43.00	SH	HRD BLK SDY		0	
12	FC 52	C	598.00	648.50	50.50	SH	DRK GRY		0	
13	FC 52	C	648.50	681.00	32.50	SS	GRY	TF	0	
14	FC 52	C	681.00	693.00	12.00	SH	GRY SDY		0	
15	FC 52	C	693.00	698.50	5.50	CO		K	0	
16	FC 52	C	698.50	699.30	.80	SH	GRY		0	
17	FC 52	C	699.30	700.00	.70	CO			0	
18	FC 52	C	700.00	710.60	10.60	SH	GRY SDY		0	
19	FC 52	C	710.60	715.50	4.90	CO		J	0	
20	FC 52	C	715.50	718.20	2.70	SH	GRY		0	
21	FC 52	C	718.20	724.50	6.30	CO		UI	0	
22	FC 52	C	724.50	725.30	.80	SH	GRY		0	
23	FC 52	C	725.30	729.20	3.90	CO		LI	1	
24	FC 52	C	729.20	731.20	2.00	SH	GRY		0	
25	FC 52	C	731.20	737.70	6.50	CO		LI	5	
26	FC 52	C	737.70	744.50	6.80	SH	GRY		0	
27	FC 52	C	744.50	754.50	10.00	SH	GRY SDY		0	
28	FC 52	C	754.50	772.40	17.90	SS	GRY SFT		0	
29	FC 52	C	772.40	777.00	4.60	SH	SDY		0	
30	FC 52	C	777.00	797.10	20.10	SS			0	
31	FC 52	C	797.10	799.50	2.40	SH	SDY		0	
32	FC 52	C	799.50	799.90	.40	SS			0	
33	FC 52	C	799.90	805.40	5.50	CO		G	0	
34	FC 52	C	805.40	809.50	4.10	SS			0	
35	FC 52	C	809.50	814.50	5.00	SH	SDY		0	
36	FC 52	C	814.50	839.50	25.00	SS			0	

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
37	FC 52	C	839.50	857.30	17.80	SH	GRY SDY		0	
38	FC 52	C	857.30	857.50	.20	CO			0	
39	FC 52	C	857.50	857.90	.40	SS	GRY		0	
40	FC 52	C	857.90	863.70	5.80	CO		C	0	
41	FC 52	C	863.70	868.50	4.80	SS	GRY		0	
42	FC 52	C	868.50	880.10	11.60	SH	GRY CRB SDY		0	
43	FC 52	C	880.10	883.30	3.20	SS	GRY		0	
44	FC 52	C	883.30	884.10	.80	SH	GRY		0	
45	FC 52	C	884.10	887.50	3.40	SS	GRY		0	
46	FC 52	C	887.50	910.70	23.20	SH	GRY SDY		0	
47	FC 52	C	910.70	916.50	5.80	SS	GRY		0	
48	FC 52	C	916.50	917.50	1.00	SH	GRY SDY		0	
49	FC 52	C	917.50	928.40	10.90	SS	GRY		0	
50	FC 52	C	928.40	932.40	4.00	SH	DRK CRB		0	
51	FC 52	C	932.40	932.90	.50	CO			0	
52	FC 52	C	932.90	936.50	3.60	SH	DRK CRB		0	
53	FC 52	C	936.50	936.70	.20	CO			0	
54	FC 52	C	936.70	938.30	1.60	SH	DRK CRB		0	
55	FC 52	C	938.30	947.50	9.20	SS	GRY	BH	0	

			SEAM CODE	SAMP NO	SAMPLE DEPTH FROM	SAMPLE DEPTH TO	ANALYSIS CODE	PROXIMATE ANALYSIS %MOIS	%VOL	%CARB	%ASH	%SUL	BTU	EQUIL. MOIST	F P
1	FC 52	D	K	1	693.00	698.50	1	3.2	39.7	47.8	9.3	1.95	12486	.00	F
2	FC 52	D	K	1	693.00	698.50	2	.0	41.1	49.4	9.6	2.01	12897	.00	F
3	FC 52	D	K	1	693.00	698.50	3	.0	45.4	54.6	.0	.00	14260	.00	F
4	FC 52	D	J	2	710.60	715.50	1	3.8	37.3	41.8	17.1	1.91	11253	3.44	F
5	FC 52	D	J	2	710.60	715.50	2	.0	38.8	43.4	17.8	1.98	11699	3.44	F
6	FC 52	D	I	3	718.20	724.50	1	3.8	37.9	45.0	13.3	.61	11813	3.56	F
7	FC 52	D	I	3	718.20	724.50	2	.0	39.4	46.8	13.8	.63	12278	3.56	F
8	FC 52	D	I	4	724.50	729.20	1	3.7	33.2	41.5	21.6	.73	10541	4.00	F
9	FC 52	D	I	4	724.50	729.20	2	.0	34.5	43.1	22.4	.76	10945	4.00	F
10	FC 52	D	LI	5	731.20	737.70	1	4.0	38.1	49.4	8.5	1.01	12638	3.33	F
11	FC 52	D	LI	5	731.20	737.70	2	.0	39.7	51.5	8.8	1.05	13170	3.33	F
12	FC 52	D	G	6	799.90	805.40	1	3.7	37.8	49.5	9.0	1.26	12560	.00	F
13	FC 52	D	G	6	799.90	805.40	2	.0	39.2	51.4	9.3	1.31	13045	.00	F
14	FC 52	D	G	6	799.90	805.40	3	.0	43.3	57.7	.0	.00	14389	.00	F
15	FC 52	D	CD	7	858.20	863.80	1	3.8	33.8	42.3	20.0	.65	10720	2.82	F
16	FC 52	D	CD	7	858.20	863.80	2	.0	35.2	44.0	20.8	.68	11149	2.82	F

			SEAM CODE	SAMP NO	ULTIMATE ANALYSIS C	H2	N	CL	O2	FSI	GRINDABILITY	ASH SOFTENING TEMP. A	B	C	D
1	FC 52	E	J	2	62.6	4.8	1.2	.0	8.6	.0	38.0	2240	2645	2695	2750
2	FC 52	E	J	2	65.1	5.0	1.2	.0	8.9	.0	38.0	2440	2645	2695	2750
3	FC 52	E	I	3	66.6	4.8	1.2	.0	9.8	.0	40.3	2390	2605	2675	2750
4	FC 52	E	I	3	69.2	5.0	1.2	.0	10.2	.0	40.3	2390	2605	2675	2750
5	FC 52	E	I	4	59.4	4.3	.7	.0	9.5	.0	44.1	2460	2715	2750	2750
6	FC 52	E	I	4	61.7	4.5	.8	.0	9.8	.0	44.1	2460	2715	2750	2750

				SEAM CODE	SAMP NO	ULTIMATE ANALYSIS C	H2	N	CL	O2	FSI	GRINDABILITY	ASH SOFTENING TEMP. A	B	C	D
7	FC	52	E	LI	5	71.2	4.9	1.2	.1	9.1	.0	37.8	2200	2300	2350	2590
8	FC	52	E	LI	5	74.2	5.1	1.3	.1	9.5	.0	37.8	2200	2300	2350	2590
9	FC	52	E	CD	7	60.2	4.5	1.1	.1	9.7	.0	41.2	2750	2750	2750	2750
10	FC	52	E	CD	7	62.6	4.6	1.2	.1	10.1	.0	41.2	2750	2750	2750	2750

				SEAM CODE	SAMP NO	ASH ANALYSIS SIO2	AL2O3	FE2O3	TIO2	P2O5	CAO	MGO	NA2O	K2O	SO3
1	FC	52	F	K	1	43.07	20.16	14.23	.61	.25	7.90	1.76	1.54	.66	7.15
2	FC	52	F	J	2	57.26	24.73	7.99	.90	.05	2.61	.93	.68	.75	1.86
3	FC	52	F	I	3	54.07	25.85	3.35	1.09	.05	5.63	1.68	1.22	.59	4.54
4	FC	52	F	I	4	63.03	23.42	3.40	.91	.17	2.74	1.35	.80	1.24	2.00
5	FC	52	F	LI	5	57.10	18.20	4.46	1.18	.17	7.16	1.80	1.72	.54	6.05
6	FC	52	F	G	6	52.91	24.14	5.77	1.21	.05	5.83	1.10	1.22	.41	4.25
7	FC	52	F	CD	7	57.57	31.11	2.27	1.23	.05	2.59	.76	.79	.64	1.85

SEQ NO = 1 DRILL HOLE NO = FC 64 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 22

SECTION CODE = D8 SURFACE ELEV. = 6124.40 HOW DET. = 6

N-COORD = 201694 E-COORD = 2073495 SOURCE = 2 LOCATION = 1

THK CORED = .00 THK N-CORED = .00 USGS = EMERY EAST SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 64 FORMAT = B PROPERTY OR FARM = DRILLER = GILLAND L

DRILL CONTR = CONSOL DATE DRILLED = 0769

TWP OR PLACE = EMERY COMMENTS = CEMENT

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 64	C	.00	208.00	208.00	SH	DRK GRY		0	
4	FC 64	C	208.00	278.00	70.00	SH	DRK GRY SDY		0	
5	FC 64	C	278.00	378.00	100.00	SH	DRK GRY		0	
6	FC 64	C	378.00	413.80	35.80	SH	DRK GRY SDY		0	
7	FC 64	C	413.80	456.00	42.20	SS		TF	0	
8	FC 64	C	456.00	460.70	4.70	CO		J	0	
9	FC 64	C	460.70	462.20	1.50	SH			0	
10	FC 64	C	462.20	463.40	1.20	CO			0	
11	FC 64	C	463.40	470.70	7.30	SH	SDY CRB		0	
12	FC 64	C	470.70	473.70	3.00	CO		UI	0	
13	FC 64	C	473.70	475.50	1.80	SH	CAR		0	
14	FC 64	C	475.50	478.90	3.40	CO		LI	1	
15	FC 64	C	478.90	484.70	5.80	SH			0	
16	FC 64	C	484.70	492.90	8.20	CO		LI	5	
17	FC 64	C	492.90	495.70	2.80	SH	GRY CRB		0	
18	FC 64	C	495.70	495.90	.20	CO			0	
19	FC 64	C	495.90	498.20	2.30	SS	SHY		0	
20	FC 64	C	498.20	504.00	5.80	SH	SDY SLY		0	
21	FC 64	C	504.00	506.40	2.40	SS	SHY		0	
22	FC 64	C	506.40	514.00	7.60	SH	DRK		0	
23	FC 64	C	514.00	516.90	2.90	ST			0	
24	FC 64	C	516.90	520.80	3.90	SH	GRY CRB		0	
25	FC 64	C	520.80	525.70	4.90	CO		G	0	
26	FC 64	C	525.70	533.80	8.10	SH	CRB SDY		0	
27	FC 64	C	533.80	567.00	33.20	SS			0	
28	FC 64	C	567.00	567.60	.60	SH	SDY		0	
29	FC 64	C	567.60	570.60	3.00	CO		C	0	NOT IN ANAL
30	FC 64	C	570.60	585.00	14.40	SH	CRB SDY BH		0	
31	FC 64	C	446.00	456.00	10.00	SS	LIT MED GRY SHS		0	
32	FC 64	C	456.00	456.50	.50	CO		J	0	
33	FC 64	C	456.50	456.68	.18	SH	BLK CRB SDY	J	0	
34	FC 64	C	456.68	457.74	1.06	CO		J	0	
35	FC 64	C	457.74	457.76	.02	SH	BLK	J	0	
36	FC 64	C	457.76	460.58	2.82	CO		J	0	

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
37	FC 64	C	460.58	461.95	1.37	CL	SFT CRB	J	0	
38	FC 64	C	461.95	463.24	1.29	CO		J	0	
39	FC 64	C	463.24	463.47	.23	SH	DRK GRY COS		0	
40	FC 64	C	463.47	465.12	1.65	CL	GRY SLK		0	
41	FC 64	C	465.12	465.77	.65	SH	DRK COS		0	
42	FC 64	C	465.77	466.18	.41	CO			0	
43	FC 64	C	466.18	470.38	4.20	ST	LIT SHS SSE		0	
44	FC 64	C	470.38	470.70	.32	CO	SHY		0	
45	FC 64	C	470.70	473.84	3.14	CO		UI	0	
46	FC 64	C	473.84	473.92	.08	SH	DRK		0	
47	FC 64	C	473.92	479.06	5.14	CO		LI	1	
48	FC 64	C	479.06	479.18	.12	BO			0	
49	FC 64	C	479.18	480.88	1.70	SH	DRK COS SHS		0	
50	FC 64	C	480.88	482.18	1.30	SS	LIT FGR SHS		0	
51	FC 64	C	482.18	484.70	2.52	SH			0	
52	FC 64	C	484.70	492.90	8.20	CO		LI	5	
53	FC 64	C	492.90	493.04	.14	BO			0	
54	FC 64	C	493.04	495.71	2.67	CL	DRK GRY SHY		0	
55	FC 64	C	495.71	497.51	1.80	SS	LIT GRY FGR SLY		0	
56	FC 64	C	497.51	502.90	5.39	SH	MED GRY CLY		0	
57	FC 64	C	510.80	512.75	1.95	CL	GRY SHY		0	
58	FC 64	C	512.75	513.48	.73	SH	DRK COS		0	
59	FC 64	C	513.48	516.56	3.08	SS	LIT FGR SLY		0	
60	FC 64	C	516.56	520.80	4.24	SH	DRK COL CLY		0	
61	FC 64	C	520.80	521.00	.20	CO		G	0	
62	FC 64	C	521.00	521.15	.15	CL	COS	G	0	
63	FC 64	C	521.15	525.32	4.17	CO		G	0	
64	FC 64	C	525.32	527.77	2.45	SH	DRK SDY COL	G	0	
66	FC 64	C	527.77	566.80	39.03	SS	LIT COS		0	
67	FC 64	C	566.80	567.17	.37	SH	BLK		0	
68	FC 64	C	567.17	567.60	.43	SS	COS		0	
69	FC 64	C	567.60	570.60	3.00	CO		G	0	
70	FC 64	C	570.60	571.15	.55	SH	DRK COS		0	
71	FC 64	C	571.15	571.80	.65	CL	DRK		0	
72	FC 64	C	571.80	571.90	.10	BO			0	
73	FC 64	C	571.90	572.10	.20	SH	CLY DRK COL		0	
74	FC 64	C	572.10	530.60	8.50	ST	LIT SDY		0	

			SEAM CODE	SAMP NO	SAMPLE DEPTH FROM	TO	ANALYSIS CODE	PROXIMATE ANALYSIS %MOIS	%VOL	%CARB	%ASH	%SUL	BTU	EQUIL. MOIST	F P
1	FC 64	D	K	1	456.00	460.70	1	2.9	39.2	41.5	16.4	3.26	11411	.00	F
2	FC 64	D	K	1	456.00	460.70	2	.0	40.4	42.7	16.9	3.36	11751	.00	F
3	FC 64	D	K	1	456.00	460.70	3	.0	48.6	51.4	.0	.00	14146	.00	F
4	FC 64	D	J	2	470.70	478.90	1	3.0	39.0	45.9	12.1	1.86	12131	.00	F
5	FC 64	D	J	2	470.70	478.90	2	.0	40.2	47.3	12.5	1.92	12507	.00	F
6	FC 64	D	I	3	485.00	492.90	1	3.6	37.5	52.6	6.4	.70	12993	.00	F
7	FC 64	D	I	3	485.00	492.90	2	.0	38.9	54.5	6.6	.73	13473	.00	F
8	FC 64	D	LI	4	520.80	525.50	1	4.3	36.7	42.6	16.4	2.05	11316	.00	F
9	FC 64	D	LI	4	520.80	525.50	2	.0	38.4	44.6	14.1	2.14	11826	.00	F

10	FC	64	D	LI	4	520.80	525.50	3	.0	46.3	53.7	.0	.00	14265	.00	F

				SEAM CODE	SAMP NO	ULTIMATE ANALYSIS C	H2	N	CL	O2	FSI	GRINDABILITY	ASH SOFTENING TEMP. A	B	C	D
1	FC	64	E	J	2	67.9	4.9	1.2	.0	9.0	.0	.0	2205	2420	2460	2530
2	FC	64	E	J	2	70.0	5.1	1.2	.0	9.2	.0	.0	2205	2420	2460	2530
3	FC	64	E	I	3	73.7	5.0	1.0	.0	9.6	.0	.0	2120	2190	2235	2440
4	FC	64	E	I	3	76.4	5.2	1.1	.0	10.0	.0	.0	2120	2190	2235	2440

				SEAM CODE	SAMP NO	ASH ANALYSIS SIO2	AL2O3	FE2O3	TIO2	P2O5	CAO	MGO	NA2O	K2O	SO3
2	FC	64	F	J	2	47.02	25.30	12.58	1.02	.19	5.84	1.18	1.01	.45	5.37
3	FC	64	F	I	3	46.84	16.32	7.73	1.13	.58	10.14	2.53	2.04	.44	9.33
4	FC	64	F	LI	4'	53.42	27.91	7.85	1.11	.16	1.85	.48	.65	.37	1.29

SEQ NO = 1 DRILL HOLE NO = FC 65 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 15

SECTION CODE = A7 SURFACE ELEV. = 6129.22 HOW DET. = 6

N-COORD = 204792 E-COORD = 2074590 SOURCE = 2 LOCATION = 1

THK CORED = .00 THK N-CORED = .00 USGS = SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 65 FORMAT = B PROPERTY OR FARM = DRILLER = GILLAND L

DRILL CONTR = CONSOL DATE DRILLED = 0869

TWP OR PLACE = EMERY COMMENTS = CEMENT

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 65	C	.00	39.50	39.50	SH	LIT GRY		0	
4	FC 65	C	39.50	472.30	432.80	SH	DRK GRY		0	
5	FC 65	C	472.30	546.00	73.70	SS		TF	0	
6	FC 65	C	546.00	546.20	.20	SH	CRB		0	
7	FC 65	C	546.20	554.00	7.80	CO		UI	0	
8	FC 65	C	554.00	554.70	.70	SH	CRB		0	
9	FC 65	C	554.70	559.20	4.50	SS			0	
10	FC 65	C	559.20	561.30	2.10	SH	GRY		0	
11	FC 65	C	561.30	561.70	.40	CO			0	
12	FC 65	C	561.70	564.60	2.90	SH	GRY CRB		0	
13	FC 65	C	564.60	571.60	7.00	CO		LI	0	
14	FC 65	C	571.60	573.70	2.10	SH	GRY		0	
15	FC 65	C	573.70	574.00	.30	CO			0	
16	FC 65	C	574.00	582.30	8.30	SH	GRY		0	
17	FC 65	C	582.30	604.50	22.20	SS	SHY		0	
18	FC 65	C	604.50	607.00	2.50	SH	CRB		0	
19	FC 65	C	607.00	607.20	.20	CO		G	0	
20	FC 65	C	607.20	607.40	.20	BO		G	0	
21	FC 65	C	607.40	611.10	3.70	CO		G	0	
22	FC 65	C	611.10	614.70	3.60	SH	CRB SDY		0	
23	FC 65	C	614.70	678.50	63.80	SS			0	
24	FC 65	C	678.50	681.00	2.50	SH	SDY		0	
25	FC 65	C	681.00	681.30	.30	CO		D	0	
26	FC 65	C	681.30	681.70	.40	SH	CRB	D	0	
27	FC 65	C	681.70	682.20	.50	CO		D	0	
28	FC 65	C	682.20	682.50	.30	SH	CRB	D	0	
29	FC 65	C	682.50	683.00	.50	CO		D	0	
30	FC 65	C	683.00	683.50	.50	SH		D	0	
31	FC 65	C	683.50	684.60	1.10	CO		D	0	
32	FC 65	C	684.60	687.60	3.00	SH	CRB BNY		0	
33	FC 65	C	687.60	691.40	3.80	CO		C	0	
34	FC 65	C	691.40	692.00	.60	SH		C	0	
35	FC 65	C	692.00	694.30	2.30	CO		C	0	
36	FC 65	C	694.30	695.30	1.00	SH	CRB		0	

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
37	FC 65	C	695.30	696.00	.70	CO			0	
38	FC 65	C	696.00	705.00	9.00	SH	GRY	BH	0	

			SEAM CODE	SAMP NO	SAMPLE DEPTH FROM	TO	ANALYSIS CODE	PROXIMATE ANALYSIS %MOIS	%VOL	%CARB	%ASH	%SUL	BTU	EQUIL. MOIST	F P
1	FC 65	D	J	1	546.20	548.13	1	3.2	37.4	46.3	13.1	2.95	11982	.00	F
2	FC 65	D	J	1	546.20	548.13	2	.0	38.7	47.8	13.5	3.05	12383	.00	F
3	FC 65	D	J	1	546.20	548.13	3	.0	44.7	5.5	30.0	.00	14321	.00	F
4	FC 65	D	J	2	548.13	554.00	1	2.9	40.1	48.9	8.1	2.05	12925	.00	F
5	FC 65	D	J	2	548.13	554.00	2	.0	41.3	50.4	8.3	2.11	13312	.00	F
6	FC 65	D	I	3	564.60	565.65	1	3.1	33.4	44.3	19.2	2.10	11161	.00	F
7	FC 65	D	I	3	564.60	565.65	2	.0	33.5	45.7	19.9	2.17	11515	.00	F
8	FC 65	D	I	3	564.60	565.65	3	.0	43.0	57.0	.0	.00	14367	.00	F
9	FC 65	D	I	4	565.65	571.60	1	4.0	36.9	53.7	5.4	.69	12903	.00	F
10	FC 65	D	I	4	565.65	571.60	2	.0	38.5	55.9	5.6	.72	13435	.00	F
11	FC 65	D	G	5	607.80	611.10	1	3.0	39.3	49.2	8.6	1.81	12802	.00	F
12	FC 65	D	G	5	607.80	611.10	2	.0	40.5	50.7	8.9	1.87	13192	.00	F
13	FC 65	D	G	5	607.80	611.10	3	.0	44.4	55.6	.0	.00	14473	.00	F
14	FC 65	D	CD	6	681.00	684.70	1	3.7	29.1	26.9	40.4	2.98	7640	.00	F
15	FC 65	D	CD	6	681.00	684.70	2	.0	30.2	27.9	42.0	3.09	7932	.00	F
16	FC 65	D	CD	6	681.00	684.70	3	.0	52.0	48.0	.0	.00	13666	.00	F
17	FC 65	D	CD	7	687.80	694.30	1	3.2	34.9	44.9	17.0	.95	11318	.00	F
18	FC 65	D	CD	7	687.80	694.30	2	.0	36.0	46.4	17.5	.98	11696	.00	F

			SEAM CODE	SAMP NO	ULTIMATE ANALYSIS C	H2	N	CL	O2	FSI	GRINDABILITY	ASH SOFTENING TEMP. A	B	C	D
1	FC 65	E	J	2	71.4	5.3	1.3	.0	9.0	.0	.0	2250	2495	2510	2540
2	FC 65	E	J	2	73.5	5.5	1.3	.0	9.3	.0	.0	2250	2495	2510	2540
3	FC 65	E	I	4	73.6	5.1	1.2	.0	10.0	.0	.0	2145	2220	2280	2540
4	FC 65	E	I	4	76.7	5.3	1.3	.0	10.4	.0	.0	2145	2220	2280	2540
5	FC 65	E	CD	8	63.9	4.7	.7	.0	9.6	.0	.0	2650	2740	2750	2750
6	FC 65	E	CD	8	66.0	4.8	.7	.0	9.9	.0	.0	2650	2740	2750	2750

			SEAM CODE	SAMP NO	ASH ANALYSIS SIO2	AL2O3	FE2O3	TIO2	P2O5	CAO	MGO	NA2O	K2O	SO3
1	FC 65	F	J	1	44.06	24.36	16.76	.79	.11	6.61	.60	.46	.47	5.14
2	FC 65	F	J	2	42.53	28.28	13.32	.99	.23	6.17	1.40	1.92	.21	4.93
3	FC 65	F	I	3	61.29	19.31	11.34	.76	.45	2.48	.93	.32	1.15	1.68
4	FC 65	F	I	4	44.09	20.06	6.74	1.35	.96	10.48	2.46	2.17	.46	9.77
5	FC 65	F	G	5	43.29	22.19	12.10	1.15	.23	8.58	1.65	.77	.45	8.21
6	FC 65	F	CD	6	60.45	23.72	7.94	.77	.05	1.83	1.21	.32	1.56	1.49
7	FC 65	F	CD	7	47.21	27.16	4.06	1.15	.05	6.76	.85	1.12	.58	6.92

SEQ NO = 1 DRILL HOLE NO = FC 66 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 21

SECTION CODE = E4 SURFACE ELEV. = 6129.82 HOW DET. = 6

N-COORD = 202229 E-COORD = 2070950 SOURCE = 2 LOCATION = 1

THK CORED = .00 THK N-CORED = .00 USGS = SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 66 FORMAT = B PROPERTY OR FARM = DRILLER = GILLAND L

DRILL CONTR = CONSOL DATE DRILLED = 0869

TWP OR PLACE = EMERY COMMENTS = CEMENT

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 66	C	.00	20.00	20.00	CL	LIT SDY		0	
4	FC 66	C	20.00	519.00	499.00	SH	DRK		0	
5	FC 66	C	519.00	593.74	74.74	SS		TF	0	
6	FC 66	C	593.74	595.20	1.46	SH	COL		0	
7	FC 66	C	595.20	598.00	2.80	CO		K	1	
8	FC 66	C	598.00	598.54	.54	SH	SLY		0	
9	FC 66	C	598.54	599.50	.96	CL	GRY SFT		0	
10	FC 66	C	599.50	599.59	.09	SS	LIT COS		0	
11	FC 66	C	599.59	601.53	1.94	CO		K	3	
12	FC 66	C	601.53	601.60	.07	SH	BLK		0	
13	FC 66	C	601.60	601.80	.20	CO	SHY		0	
14	FC 66	C	601.80	606.76	4.96	SH	DRK COL SLY		0	
15	FC 66	C	606.76	607.18	.42	CO	SHY BNY		0	
16	FC 66	C	607.18	608.35	1.17	SH	DRK COS SDY		0	
17	FC 66	C	608.35	611.60	3.25	SS	LIT SLY SHY		0	
18	FC 66	C	611.60	611.60	.00	CO	EXH	J	0	
19	FC 66	C	611.60	612.20	.60	ST	LIT SDY SHY		0	
20	FC 66	C	612.20	612.32	.12	SH	BLK CSE		0	
21	FC 66	C	612.32	615.81	3.49	CO	SHS	UI	0	
22	FC 66	C	615.81	615.97	.16	CL	SHS		0	
23	FC 66	C	615.97	620.00	4.03	CO		LI	1	
24	FC 66	C	620.00	620.95	.95	SH	DRK CSE		0	
25	FC 66	C	620.95	623.80	2.85	SS	LIT GRY FGR SHS		0	
26	FC 66	C	623.80	626.20	2.40	SH	DRK GRY SSE		0	
27	FC 66	C	626.20	626.77	.57	SS	GRY COS		0	
28	FC 66	C	626.77	628.00	1.23	CO	SSE	LI	5	
29	FC 66	C	628.00	635.20	7.20	CO		LI	5	
30	FC 66	C	635.20	637.95	2.75	SH	DRK COL CLY		0	
31	FC 66	C	637.95	638.51	.56	SH	CSE DRK SLY		0	
32	FC 66	C	638.51	645.20	6.69	SH	CLY GRY SFT SLY		0	
33	FC 66	C	645.20	663.45	18.25	ST	LIT GRY SHS		0	
34	FC 66	C	663.45	668.60	5.15	SH	DRK SLY COL LAM		0	
35	FC 66	C	668.60	668.92	.32	CO			0	
36	FC 66	C	668.92	669.13	.21	ST	SHS		0	

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
37	FC 66	C	669.13	674.25	5.12	CO	BNY	G	0	
38	FC 66	C	674.25	674.30	.05	SH	BLK CRB		0	
39	FC 66	C	674.30	676.07	1.77	SH	BLK COL		0	
40	FC 66	C	676.07	676.40	.33	CO			0	
41	FC 66	C	676.40	678.05	1.65	SH	DRK SLY SDY COL		0	
42	FC 66	C	678.05	680.15	2.10	SS	LIT FGR SHS		0	
43	FC 66	C	680.15	681.37	1.22	SH	DRK SLY SDY		0	
44	FC 66	C	681.37	684.30	2.93	SS	LIT SHS BH		0	

			SEAM CODE	SAMP NO	SAMPLE DEPTH FROM	TO	ANALYSIS CODE	PROXIMATE ANALYSIS %MOIS	%VOL	%CARB	%ASH	%SUL	BTU	EQUIL. MOIST	F P
1	FC 66	D	K	1	595.20	598.00	1	2.8	38.9	46.5	11.8	2.54	12308	.00	F
2	FC 66	D	K	1	595.20	598.00	2	.0	40.0	47.9	12.1	2.61	12664	.00	F
3	FC 66	D	K	1	595.20	598.00	3	.0	45.5	54.5	.0	.00	14409	.00	F
4	FC 66	D	K	2	599.50	601.60	1	3.3	40.9	47.3	8.5	2.70	12687	.00	F
5	FC 66	D	K	2	599.50	601.60	2	.0	42.3	48.9	8.8	2.79	13120	.00	F
6	FC 66	D	K	2	599.50	601.60	3	.0	46.4	53.6	.0	.00	14384	.00	F
7	FC 66	D	J	3	612.20	620.00	1	3.6	37.7	48.5	10.2	1.43	12400	.00	F
8	FC 66	D	J	3	612.20	620.00	2	.0	39.1	50.3	10.6	1.48	12863	.00	F
9	FC 66	D	J	3	612.20	620.00	3	.0	43.8	56.2	.0	.00	14391	.00	F
10	FC 66	D	I	4	628.00	635.20	1	3.6	38.4	52.6	5.4	.62	13193	.00	F
11	FC 66	D	I	4	628.00	635.20	2	.0	39.9	54.6	5.6	.64	13689	.00	F
12	FC 66	D	G	5	668.60	674.30	1	2.9	37.9	45.2	14.0	1.53	11917	.00	F
13	FC 66	D	G	5	668.60	674.30	2	.0	39.0	46.5	14.4	1.58	12269	.00	F
14	FC 66	D	G	5	668.60	674.30	3	.0	45.6	54.4	.0	.00	14338	.00	F

			SEAM CODE	SAMP NO	ULTIMATE ANALYSIS C	H2	N	CL	O2	FSI	GRINDABILITY	ASH SOFTENING TEMP. A	B	C	D
1	FC 66	E	I	4	74.4	5.2	1.1	.0	9.7	.0	.0	2115	2140	2170	2340
2	FC 66	E	I	4	77.2	5.4	1.2	.0	10.0	.0	.0	2115	2140	2170	2340

			SEAM CODE	SAMP NO	ASH ANALYSIS SIO2	AL2O3	FE2O3	TIO2	P2O5	CAO	MGO	NA2O	K2O	SO3
1	FC 66	F	K	1	43.91	25.91	12.97	.97	.24	6.47	1.27	1.46	.28	5.85
2	FC 66	F	K	2	49.05	24.92	9.68	1.19	.41	3.23	1.09	1.53	.35	3.72
3	FC 66	F	J	3	38.20	16.34	6.52	1.19	.85	16.19	3.57	2.80	.25	11.92
4	FC 66	F	I	4	51.81	28.77	6.85	1.12	.08	2.90	.90	1.12	.47	3.40

SEQ NO = 1 DRILL HOLE NO = FC 68 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 31

SECTION CODE = D3 SURFACE ELEV. = 6023.18 HOW DET. = 6

N-COORD = 191010 E-COORD = 2061340 SOURCE = 2 LOCATION = 1

THK CORED = .00 THK N-CORED = .00 USGS = ACORD LAKES SZE.CD. = 1

SEQ NO. = 2 DRILL HOLE NO = FC 68 FORMAT = B PROPERTY OR FARM = DRILLER = GILLAND L

DRILL CONTR = CONSOL DATE DRILLED = 0969

TWP OR PLACE = EMERY COMMENTS = CEMENT

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 68	C	.00	3.00	3.00	SM			0	
4	FC 68	C	3.00	370.00	367.00	SH	DRK		0	
5	FC 68	C	370.00	370.00	.00	SS		TF	0	
6	FC 68	C	370.00	459.90	89.90	SS			0	
7	FC 68	C	459.90	465.75	5.85	SS	LIT FGR		0	
8	FC 68	C	465.75	466.36	.61	CO	BNY		0	RIDER
9	FC 68	C	466.36	469.90	3.54	SH	GRY COS SLY		0	
10	FC 68	C	469.90	475.46	5.56	CO		K	0	
11	FC 68	C	475.46	475.93	.47	SH	BLK CRB	K	0	
12	FC 68	C	475.93	478.10	2.17	CO		K	0	
13	FC 68	C	478.10	480.99	2.89	SS	GRY FGR SLY SHY		0	
14	FC 68	C	480.99	485.00	4.01	SH	GRY SLY		0	
15	FC 68	C	485.00	488.90	3.90	CO		J	0	
16	FC 68	C	488.90	490.10	1.20	SH			0	
17	FC 68	C	490.10	493.90	3.80	CO		UI	0	
18	FC 68	C	493.90	494.80	.90	SH			0	
19	FC 68	C	494.80	503.80	9.00	CO		LI	0	
20	FC 68	C	503.80	504.39	.59	SH	BLK		0	
21	FC 68	C	504.39	504.62	.23	CO			0	
22	FC 68	C	504.62	505.30	.68	SH	BLK		0	
23	FC 68	C	505.30	508.30	3.00	CO	PYT	LI	5	
24	FC 68	C	508.30	511.15	2.85	SH	DRK COS		0	
25	FC 68	C	511.15	514.13	2.98	ST	GRY SDY		0	
26	FC 68	C	514.13	515.47	1.34	SH	GRY SLY		0	
27	FC 68	C	515.47	518.30	2.83	SS	LIT GRY FGR SHY		0	
28	FC 68	C	518.30	525.70	7.40	SS			0	
29	FC 68	C	525.70	525.90	.20	CO			0	RIDER
30	FC 68	C	525.90	528.20	2.30	SH	CRB		0	
31	FC 68	C	528.20	528.60	.40	CO			0	RIDER
32	FC 68	C	528.60	546.30	17.70	SH			0	
33	FC 68	C	546.30	596.10	49.80	SS			0	
34	FC 68	C	596.10	602.60	6.50	SH	CRB		0	
35	FC 68	C	602.60	608.90	6.30	CO		G	0	
36	FC 68	C	608.90	641.80	32.90	SH	CRB SDY		0	

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
37	FC 68	C	641.80	646.80	5.00	CO		CD	0	
38	FC 68	C	646.80	647.20	.40	SH	CRB BH		0	
39	FC 68	C	592.60	595.67	3.07	SS	LIT GRY MGR SHS		0	
40	FC 68	C	525.67	601.29	75.62	SH	GRY COL		0	
41	FC 68	C	601.29	601.69	.40	CO			0	
42	FC 68	C	601.69	602.49	.80	SH	DRK SDY COL		0	
43	FC 68	C	602.49	602.93	.44	CO	CLY	G	0	
44	FC 68	C	602.93	603.08	.15	SH	BLK	G	0	
45	FC 68	C	603.08	604.89	1.81	CO		G	0	
46	FC 68	C	604.89	605.34	.45	CO	SDY	G	0	
47	FC 68	C	605.34	608.95	3.61	CO		G	0	
48	FC 68	C	608.95	610.02	1.07	SH	BLK		0	
49	FC 68	C	610.02	612.25	2.23	ST	LIT GRY		0	
50	FC 68	C	612.25	618.90	6.65	SH	DRK GRY COL SLY		0	
51	FC 68	C	631.80	633.10	1.30	SH	DRK GRY SSE		0	
52	FC 68	C	633.10	635.35	2.25	SS	LIT GRY MGR SHS		0	
53	FC 68	C	635.35	638.35	3.00	SH	DRK GRY SSE COL		0	
54	FC 68	C	638.35	641.80	3.45	SS	LIT GRY MGR SHS		0	QTZ
55	FC 68	C	641.80	642.03	.23	SH	BLK		0	
56	FC 68	C	642.03	642.51	.48	CO		D	0	
57	FC 68	C	642.51	642.67	.16	SH	BLK	D	0	
58	FC 68	C	642.67	644.74	2.07	CO		D	0	
59	FC 68	C	644.74	645.01	.27	SH	BLK PYT CRB		0	
60	FC 68	C	645.01	645.51	.50	CO	CLY	C	0	
61	FC 68	C	645.51	645.57	.06	SH	BLK	C	0	
62	FC 68	C	645.57	646.75	1.18	CO		C	0	

				SEAM CODE	SAMP NO	SAMPLE DEPTH FROM	TO	ANALYSIS CODE	PROXIMATE ANALYSIS %MOIS	%VOL	%CARB	%ASH	%SUL	BTU	EQUIL. MOIST	F P
1	FC 68	D		J	1	469.90	478.10	1	3.5	38.8	43.1	14.7	2.55	11638	.00	F
2	FC 68	D		J	1	469.90	478.10	2	.0	40.2	44.6	15.2	2.64	12055	.00	F
3	FC 68	D		J	1	469.90	478.10	3	.0	47.4	52.6	.0	.00	14217	.00	F
4	FC 68	D		I	2	388.90	485.00	1	3.9	38.2	42.4	15.5	1.36	11491	.00	F
5	FC 68	D		I	2	388.90	485.00	2	.0	39.8	44.1	16.2	1.42	11956	.00	F
6	FC 68	D		I	2	388.90	485.00	3	.0	47.4	52.6	.0	.00	14262	.00	F
7	FC 68	D		I	3	490.10	503.80	1	4.0	39.8	48.5	7.8	.45	12736	.00	F
8	FC 68	D		I	3	490.10	503.80	2	.0	41.4	50.5	8.1	.47	13261	.00	F
9	FC 68	D		I	4	503.80	508.80	1	4.1	32.1	38.5	25.3	2.98	9907	.00	F
10	FC 68	D		I	4	503.80	508.80	2	.0	33.5	40.1	26.3	3.11	10323	.00	F
11	FC 68	D		I	4	503.80	508.80	3	.0	45.5	54.5	.0	.00	14014	.00	F
12	FC 68	D		CD	5	603.10	608.90	1	4.2	40.4	49.1	6.3	.86	12988	.00	F
13	FC 68	D		CD	5	603.10	608.90	2	.0	42.2	51.2	6.6	.90	13559	.00	F
14	FC 68	D		CD	5	603.10	608.90	3	.0	45.2	54.8	.0	.00	14512	.00	F
15	FC 68	D		A	6	642.00	646.80	1	4.2	36.3	45.8	13.8	.63	11784	.00	F
16	FC 68	D		A	6	642.00	646.80	2	.0	37.9	47.8	14.4	.66	12298	.00	F
17	FC 68	D		A	6	642.00	646.80	3	.0	44.2	55.8	.0	.00	14358	.00	F

				SEAM CODE	SAMP NO	C	ULTIMATE ANALYSIS H2	N	CL	O2	FSI	GRINDABILITY	ASH SOFTENING TEMP. A	B	C	D

				SEAM CODE	SAMP NO	C	ULTIMATE ANALYSIS H2	N	CL	O2	FSI	GRINDABILITY	ASH SOFTENING TEMP. A	B	C	D
1	FC	68	E	I	3	71.5	5.2	1.0	.0	10.1	.0	.0	2315	2370	2400	2560
2	FC	68	E	I	3	74.5	5.4	1.1	.0	10.5	.0	.0	2315	2370	2400	2560

				SEAM CODE	SAMP NO	ASH ANALYSIS SIO2	AL2O3	FE2O3	TIO2	P2O5	CAO	MGO	NA2O	K2O	SO3
1	FC	68	F	I	1	47.20	26.58	12.58	1.10	.26	4.02	1.17	.81	.35	3.41
2	FC	68	F	I	2	56.43	25.71	6.30	1.32	.05	2.99	1.31	.71	.43	2.42
3	FC	68	F	I	3	46.33	23.07	4.18	1.18	.30	10.47	3.36	1.92	.23	8.56
4	FC	68	F	I	4	63.73	19.46	10.56	.96	.11	1.08	.71	.40	1.12	.73
5	FC	68	F	CD	5	52.65	24.47	5.15	1.38	.12	4.73	1.26	2.42	.37	4.29
6	FC	68	F	A	6	57.29	28.12	2.65	1.63	.10	2.89	.80	.85	.26	2.41

SEQ NO = 1 DRILL HOLE NO = FC 70 FORMAT = A STATE = 43 COUNTY = 041 TWP = 23S RANGE = 58 SECTION = 06

SECTION CODE = E1 SURFACE ELEV. = 6100.43 HOW DET. = 6

N-COORD = 180728 E-COORD = 2057199 SOURCE = 2 LOCATION = 1

THK CORED = .00 THK N-CORED = .00 USGS = WALKER FLAT SZE.CD. = 1

SEQ NO. = 2 DRILL HOLE NO = FC 70 FORMAT = B PROPERTY OR FARM = DRILLER = GILLAND L

DRILL CONTR = CONSOL DATE DRILLED = 1069

TWP OR PLACE = EMERY COMMENTS = CEMENT

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 70	C	.00	273.00	273.00	SH	DRK		0	
4	FC 70	C	273.00	279.70	6.70	SS			0	
5	FC 70	C	279.70	281.70	2.00	CO		UM	0	
7	FC 70	C	281.70	284.10	2.40	SH	CRB		0	
9	FC 70	C	284.10	284.40	.30	CO		LM	0	
10	FC 70	C	284.40	284.50	.10	BO		LM	0	
11	FC 70	C	284.50	286.40	1.90	CO		LM	0	
12	FC 70	C	286.40	286.80	.40	SH	CRB	LM	0	
13	FC 70	C	286.80	287.80	1.00	CO		LM	0	
14	FC 70	C	287.80	288.30	.50	SH	SDY		0	
15	FC 70	C	288.30	328.30	40.00	SS			0	
16	FC 70	C	328.30	337.70	9.40	SH	SDY		0	
17	FC 70	C	337.70	338.10	.40	SS			0	
18	FC 70	C	338.10	341.80	3.70	SH	GRY		0	
19	FC 70	C	341.80	358.60	16.80	SS			0	
20	FC 70	C	358.60	358.90	.30	CO			0	RIDER
21	FC 70	C	358.90	359.00	.10	SH			0	
22	FC 70	C	359.00	359.30	.30	CO			0	RIDER
23	FC 70	C	359.30	365.40	6.10	SH			0	
24	FC 70	C	365.40	368.50	3.10	SS			0	
25	FC 70	C	368.50	380.60	12.10	SH			0	
26	FC 70	C	380.60	381.30	.70	CO			0	RIDER
27	FC 70	C	381.30	396.90	15.60	SS			0	
28	FC 70	C	396.90	398.40	1.50	CO			0	RIDER
29	FC 70	C	398.40	404.20	5.80	SH	GRY CRB		0	
30	FC 70	C	404.20	453.80	49.60	SS			0	
31	FC 70	C	453.80	459.90	6.10	CO		LI	1	
32	FC 70	C	459.90	460.30	.40	SH	CRB		0	
33	FC 70	C	460.30	463.40	3.10	CO		LI	5	
34	FC 70	C	463.40	464.10	.70	SH	CRB		0	
35	FC 70	C	464.10	464.80	.70	CO			0	
36	FC 70	C	464.80	511.50	46.70	SH	GRY SDY		0	
37	FC 70	C	511.50	517.00	5.50	SS			0	
38	FC 70	C	517.00	534.20	17.20	SH	GRY SDY		0	

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
39	FC 70	C	534.20	537.70	3.50	CO		G	0	
40	FC 70	C	537.70	577.60	39.90	SH	GRY CRB		0	
41	FC 70	C	577.60	581.80	4.20	CO		D	0	
42	FC 70	C	581.80	583.50	1.70	SH	DRK SDY		0	
43	FC 70	C	583.50	585.80	2.30	CO		C	0	
44	FC 70	C	585.80	586.20	.40	SH	CRB	C	0	
45	FC 70	C	586.20	586.60	.40	CO		C	0	
46	FC 70	C	586.60	594.20	7.60	SH	SDY		0	
47	FC 70	C	594.20	595.10	.90	CO			0	
48	FC 70	C	595.10	595.90	.80	SH			0	
49	FC 70	C	595.90	596.70	.80	CO			0	
50	FC 70	C	596.70	611.50	14.80	SH	GRY CRB		0	
51	FC 70	C	611.50	631.80	20.30	SS			0	
52	FC 70	C	631.80	634.70	2.90	SH	CRB		0	
53	FC 70	C	634.70	635.50	.80	CO	BNY		0	
54	FC 70	C	635.50	637.30	1.80	SH	GRY		0	
55	FC 70	C	637.30	647.30	10.00	CO		A	0	
56	FC 70	C	647.30	681.10	33.80	SH	SDY BH		0	
57	FC 70	C	274.10	279.70	5.60	SS	LIT GRY MGR		0	
58	FC 70	C	279.70	281.67	1.97	CO			0	
59	FC 70	C	281.67	283.22	1.55	SH	MED GRY	J	0	
60	FC 70	C	283.22	284.10	.88	CO	SHY	J	0	
61	FC 70	C	284.10	284.40	.30	CO		J	0	
62	FC 70	C	284.40	284.55	.15	CO	BNY	J	0	
63	FC 70	C	284.55	285.00	.45	CO		J	0	
64	FC 70	C	285.00	285.34	.34	CO	BNY	J	0	
65	FC 70	C	285.34	286.39	1.05	CO		J	0	
66	FC 70	C	286.39	286.46	.07	CO	SFT BLK CLY	J	0	
67	FC 70	C	286.46	286.64	.18	BO		J	0	
68	FC 70	C	286.64	287.87	1.23	CO	PYT BNY	J	0	
69	FC 70	C	287.87	290.27	2.40	ST	LIT GRY SDY		0	
70	FC 70	C	290.27	297.80	7.53	SS	LIT GRY SHS		0	
71	FC 70	C	443.80	453.80	10.00	SS	LIT GRY MGR		0	
72	FC 70	C	453.80	459.83	6.03	CO		I	0	
73	FC 70	C	459.83	460.18	.35	SH	BLK COL	I	0	
74	FC 70	C	460.18	463.63	3.45	CO		I	0	
75	FC 70	C	463.63	464.53	.90	SH	BLK BNY	I	0	
76	FC 70	C	464.53	464.80	.27	CO		I	0	
77	FC 70	C	464.80	465.30	.50	SH	BLK COS		0	
78	FC 70	C	465.30	469.00	3.70	SH	CLY GRY		0	
79	FC 70	C	469.00	470.35	1.35	ST	GRY SHY		0	
80	FC 70	C	470.35	474.80	4.45	SH	GRY CLY		0	
81	FC 70	C	523.00	533.00	10.00	SH	GRY CLY		0	
82	FC 70	C	533.00	533.10	.10	CO		G	0	
83	FC 70	C	533.10	533.30	.20	SH	LIT	G	0	
84	FC 70	C	533.30	533.75	.45	CO	BNY	G	0	
85	FC 70	C	533.75	533.97	.22	SH	DRK	G	0	
86	FC 70	C	533.97	537.70	3.73	CO	SHS	G	0	
87	FC 70	C	537.70	539.39	1.69	ST	GRY COS		0	
88	FC 70	C	539.39	540.46	1.07	SH	DRK COS		0	
89	FC 70	C	540.46	541.15	.69	SH	BLK CSE		0	

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
90	FC 70	C	541.15	543.46	2.31	ST	LIT GRY		0	
91	FC 70	C	543.46	547.70	4.24	SH	DRK GRY SLY		0	
92	FC 70	C	567.60	575.02	7.42	SH	DRK GRY CLY		0	
93	FC 70	C	575.02	576.87	1.85	SS	LIT GRY FGR SHY		0	
94	FC 70	C	576.87	577.60	.73	SH	BLK COL		0	
95	FC 70	C	577.60	578.05	.45	CO		D	0	
96	FC 70	C	578.05	578.30	.25	SH	BLK COL	D	0	
97	FC 70	C	578.30	581.80	3.50	CO		D	0	
98	FC 70	C	581.80	583.29	1.49	SH	CLY GRY SFT		0	
99	FC 70	C	583.29	585.59	2.30	CO		C	0	
100	FC 70	C	585.59	585.97	.38	SH	BLK COL	C	0	
101	FC 70	C	585.97	586.60	.63	CO		C	0	
102	FC 70	C	627.30	631.53	4.23	SS	LIT GRY FGR SHY		0	
103	FC 70	C	631.53	633.36	1.83	SH	DRK GRY COS		0	
104	FC 70	C	633.36	633.78	.42	CO			0	
105	FC 70	C	633.78	633.98	.20	SH	BLK COL		0	
106	FC 70	C	633.98	637.30	3.32	SH	DRK CLY COL		0	
107	FC 70	C	637.30	644.51	7.21	CO		A	0	
108	FC 70	C	644.51	644.68	.17	SH	BLK	A	0	
109	FC 70	C	644.68	644.81	.13	CO		A	0	
110	FC 70	C	647.30	652.38	5.08	SH	GRY COL SLY		0	
111	FC 70	C	652.38	653.41	1.03	SH	CLY COL		0	
112	FC 70	C	653.41	653.76	.35	SH	DRK COS		0	
113	FC 70	C	653.76	655.41	1.65	CO	SHY		0	
114	FC 70	C	655.41	657.30	1.89	SH	DRK COL		0	

			SEAM CODE	SAMP NO	SAMPLE DEPTH FROM	SAMPLE DEPTH TO	ANALYSIS CODE	PROXIMATE ANALYSIS %MOIS	%VOL	%CARB	%ASH	%SUL	BTU	EQUIL. MOIST	F P
1	FC 70	D	J	1	284.10	287.80	1	4.4	36.9	35.7	23.0	2.93	10156	.00	F
2	FC 70	D	J	1	284.10	287.80	2	.0	38.6	37.4	24.1	3.06	10625	.00	F
3	FC 70	D	J	1	284.10	287.80	3	.0	50.8	49.2	.0	.00	13999	.00	F
4	FC 70	D	I	2	453.80	464.80	1	4.9	36.7	43.5	14.9	.56	11442	.00	F
5	FC 70	D	I	2	453.80	464.80	2	.0	38.6	45.8	15.6	.59	12034	.00	F
6	FC 70	D	I	2	453.80	464.80	3	.0	45.7	54.3	.0	.00	14263	.00	F
7	FC 70	D	G	3	533.00	537.70	1	5.2	33.9	38.3	22.6	1.54	10111	.00	F
8	FC 70	D	G	3	533.00	537.70	2	.0	35.8	40.4	23.8	1.62	10669	.00	F
9	FC 70	D	G	3	533.00	537.70	3	.0	47.0	53.0	.0	.00	14003	.00	F
10	FC 70	D	CD	4	577.60	586.60	1	6.7	29.7	32.7	31.9	.64	8542	.00	F
11	FC 70	D	CD	4	577.60	586.60	2	.0	31.8	35.1	33.1	.69	9150	.00	F
12	FC 70	D	CD	4	577.60	586.60	3	.0	47.6	52.4	.0	.00	13679	.00	F
13	FC 70	D	A	5	637.30	642.10	1	4.6	38.2	46.7	10.6	.58	12241	4.85	F
14	FC 70	D	A	5	637.30	642.10	2	.0	40.0	48.9	11.1	.61	12827	4.85	F
15	FC 70	D	A	6	642.10	644.81	1	3.7	40.1	47.0	9.2	.81	12729	4.06	F
16	FC 70	D	A	6	642.10	644.81	2	.0	41.6	48.8	9.6	.84	13219	4.06	F

				SEAM CODE	SAMP NO	C	ULTIMATE ANALYSIS H2	N	CL	O2	FSI	GRINDABILITY	ASH SOFTENING TEMP. A	B	C	D
				SEAM CODE	SAMP NO	C	ULTIMATE ANALYSIS H2	N	CL	O2	FSI	GRINDABILITY	ASH SOFTENING TEMP. A	B	C	D
1	FC	70	E	A	5	68.1	4.9	1.2	.0	10.1	.0	38.4	2750	2750	2750	2750
2	FC	70	E	A	5	71.4	5.1	1.2	.0	10.6	.0	38.4	2750	2750	2750	2750
3	FC	70	E	A	6	70.5	5.1	1.0	.0	9.6	.0	38.1	2235	2280	2440	2725
4	FC	70	E	A	6	73.2	5.3	1.1	.0	10.0	.0	38.1	2235	2280	2440	2725

				SEAM CODE	SAMP NO	ASH ANALYSIS SIO2	AL2O3	FE2O3	TIO2	P2O5	CAO	MGO	NA2O	K2O	SO3
1	FC	70	F	J	1	52.15	25.43	9.29	1.05	.25	5.09	.71	.63	.55	4.29
2	FC	70	F	I	2	59.68	23.57	3.77	1.18	.31	4.16	1.77	1.43	.86	2.90
3	FC	70	F	G	3	59.86	27.68	5.82	1.20	.13	.99	.89	.90	.95	.50
4	FC	70	F	CD	4	61.70	25.75	3.06	1.07	.25	1.66	1.76	1.08	.62	.96
5	FC	70	F	A	5	56.81	27.72	2.69	1.14	.25	3.39	1.01	1.21	.33	1.55
6	FC	70	F	A	6	53.64	21.01	6.23	1.62	.20	6.68	1.57	1.67	.58	5.85

SEQ NO = 1 DRILL HOLE NO = FC 72 FORMAT = A STATE = 43 COUNTY = 015 TWP = 23S RANGE = 6E SECTION = 08

SECTION CODE = A1 SURFACE ELEV. = 6247.76 HOW DET. = 0

N-COORD = 178161 E-COORD = 2068087 SOURCE = 2 LOCATION = 1

THK CORED = 408.00 THK N-CORED = 60.00 USGS = ACORD LAKES SZE.CD. = 1

SEQ NO. = 2 DRILL HOLE NO = FC 72 FORMAT = B PROPERTY OR FARM = DRILLER = GILLAND L

DRILL CONTR = CONSOL DATE DRILLED = 1069

TWP OR PLACE = EMERY COMMENTS = CEMENT

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 72	C	.00	5.00	5.00	SM			0	
4	FC 72	C	5.00	30.00	25.00	SS			0	
5	FC 72	C	30.00	41.00	11.00	SH			0	
6	FC 72	C	41.00	42.00	1.00	CO		UI	0	
7	FC 72	C	42.00	43.00	1.00	SH		UI	0	
8	FC 72	C	43.00	45.00	2.00	CO		UI	0	
9	FC 72	C	45.00	81.10	36.10	SH	DRK GRY		0	START CORE
10	FC 72	C	81.10	82.60	1.50	CO		IU	0	RIDER
11	FC 72	C	82.60	83.60	1.00	SH			0	
12	FC 72	C	83.60	94.50	10.90	SS			0	
13	FC 72	C	94.50	104.50	10.00	SS	LIT GRY FGR COL		0	
14	FC 72	C	104.50	108.50	4.00	CO	HRD	LI	1	
15	FC 72	C	108.50	110.82	2.32	SH	BLK CRB COS		0	
16	FC 72	C	110.82	112.00	1.18	CO		LI	5	
17	FC 72	C	112.00	116.05	4.05	SS	LIT GRY FGR		0	
18	FC 72	C	116.05	118.50	2.45	SH	DRK GRY CLY		0	
19	FC 72	C	221.40	223.50	2.10	SH	DRK GRY CLY		0	
20	FC 72	C	223.50	224.00	.50	SH	CLY GRY SFT COL		0	
21	FC 72	C	224.00	226.90	2.90	CO	SHY	G	0	
22	FC 72	C	226.90	231.40	4.50	SH	BLK CLY COS		0	
23	FC 72	C	231.40	233.16	1.76	CO	HRD	D	0	
25	FC 72	C	233.16	233.55	.39	SH	BLK COS	D	0	
26	FC 72	C	233.55	237.40	3.85	CO	HRD	D	0	
27	FC 72	C	237.40	240.97	3.57	CO	HRD SHS	D	0	
28	FC 72	C	240.97	241.48	.51	SH	BLK COS CLY		0	
29	FC 72	C	241.48	242.38	.90	CL	LIT		0	
30	FC 72	C	242.38	246.19	3.81	CO	BNY SHS HRD	C	0	
31	FC 72	C	246.19	246.36	.17	SH	DRK COL	C	0	
32	FC 72	C	246.36	247.90	1.54	CO	HRD BNY	C	0	
33	FC 72	C	247.90	248.31	.41	SH	BLK HRD	C	0	
34	FC 72	C	248.31	250.10	1.79	CO	HRD	C	0	
35	FC 72	C	250.10	250.75	.65	SH	CLY		0	
36	FC 72	C	250.75	253.70	2.95	SH	DRK GRY CLY PYT		0	
37	FC 72	C	253.70	254.27	.57	CO		A	0	

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
38	FC 72	C	254.27	254.85	.58	SH	BLK CLY COS	A	0	
39	FC 72	C	254.85	256.50	1.65	CO	HRD	A	0	
40	FC 72	C	256.50	256.75	.25	SH	BLK COL	A	0	
41	FC 72	C	256.75	257.43	.68	CO		A	0	
42	FC 72	C	257.43	258.23	.80	SH	BLK COL	A	0	
43	FC 72	C	258.23	264.00	5.77	CO	HRD	A	0	
44	FC 72	C	264.00	264.10	.10	CO			0	
45	FC 72	C	264.10	264.47	.37	SS	LIT GRY FGR		0	
46	FC 72	C	264.47	265.74	1.27	SH	DRK GRY CLY COS		0	
47	FC 72	C	265.74	273.80	8.06	SS	LIT GRY MGR COS		0	
48	FC 72	C	273.80	335.50	61.70	SS			0	
49	FC 72	C	335.50	342.10	6.60	SH	SDY		0	
50	FC 72	C	342.10	343.10	1.00	CO			0	
51	FC 72	C	343.10	358.00	14.90	SH	SDY CRB		0	
52	FC 72	C	358.00	377.50	19.50	SS			0	
53	FC 72	C	377.50	393.00	15.50	SH	DRK SDY		0	
54	FC 72	C	393.00	403.00	10.00	SS	SHY		0	
55	FC 72	C	403.00	468.00	65.00	SH	DRY SDY BH		0	

				SEAM CODE	SAMP NO	SAMPLE DEPTH FROM	TO	ANALYSIS CODE	PROXIMATE ANALYSIS %MOIS	%VOL	%CARB	%ASH	%SUL	BTU	EQUIL. MOIST	F P
1	FC 72	D		I	1	104.42	108.42	1	7.2	37.2	49.8	5.8	.71	12437	.00	F
2	FC 72	D		I	1	104.42	108.42	2	.0	40.1	53.7	6.3	.76	13399	.00	F
3	FC 72	D		I	1	104.42	108.42	3	.0	42.8	57.2	.0	.00	14294	.00	F
4	FC 72	D		CD	2	231.38	238.82	1	4.7	36.7	45.1	13.4	.68	11690	.00	F
5	FC 72	D		CD	2	231.38	238.82	2	.0	38.6	47.3	14.1	.71	12272	.00	F
6	FC 72	D		CD	2	231.38	238.82	3	.0	44.9	55.1	.0	.00	14286	.00	F
7	FC 72	D		CD	3	238.83	240.97	1	4.8	39.1	36.4	9.8	.58	12268	.00	F
8	FC 72	D		CD	3	238.83	240.97	2	.0	41.0	48.7	10.3	.61	12888	.00	F
9	FC 72	D		CD	3	238.82	240.97	3	.0	45.7	54.3	.0	.00	14361	.00	F
10	FC 72	D		CD	4	242.38	250.10	1	4.7	35.1	40.8	19.4	.91	10661	.00	F
11	FC 72	D		CD	4	242.38	250.10	2	.0	36.8	42.8	20.3	.96	11187	.00	F
12	FC 72	D		CD	4	242.38	250.10	3	.0	46.2	53.8	.0	.00	14043	.00	F
13	FC 72	D		A	5	253.70	264.00	1	5.3	34.4	41.7	18.5	1.07	10727	.00	F
14	FC 72	D		A	5	253.70	264.00	2	.0	36.4	44.1	19.5	1.13	11331	.00	F
15	FC 72	D		A	5	253.70	264.00	3	.0	45.2	54.8	.0	.00	14085	.00	F

				SEAM CODE	SAMP NO	ASH ANALYSIS SIO2	AL2O3	FE2O3	TIO2	P2O5	CAO	MGO	NA2O	K2O	SO3
1	FC 72	F		MI	0	54.73	20.54	4.54	1.80	.21	5.81	1.94	1.41	.20	7.40
2	FC 72	F		CD	1	57.35	24.26	3.39	1.70	.40	4.28	1.62	1.36	.24	5.17
3	FC 72	F		CD	2	53.33	25.62	3.50	1.41	.24	4.05	2.03	1.34	.16	5.03
4	FC 72	F		CD	3	59.53	22.40	3.15	1.17	.24	4.21	1.39	.84	.52	5.10
5	FC 72	F		A	4	53.81	22.87	4.00	.94	.26	3.81	.99	.82	.69	4.46

SEQ NO = 1 DRILL HOLE NO = FC 73 FORMAT = A STATE = 43 COUNTY = 015 TWP = 23S RANGE = 6E SECTION = 08

SECTION CODE = B4 SURFACE ELEV. = 6169.33 HOW DET. = 6

N-COORD = 179441 E-COORD = 2065796 SOURCE = 2 LOCATION = 1

THK CORED = 528.00 THK N-CORED = 110.00 USGS = WALKER FLAT SZE.CD. = 1

SEQ NO. = 2 DRILL HOLE NO = FC 73 FORMAT = B PROPERTY OR FARM = DRILLER = GILLAND L

DRILL CONTR = CONSOL DATE DRILLED = 1069

TWP OR PLACE = STRIP 2 COMMENTS = CEMENT

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 73	C	.00	15.00	15.00	CL	SDY		0	
4	FC 73	C	15.00	50.00	35.00	SS			0	
5	FC 73	C	50.00	52.00	2.00	CO	SHY	K	0	
6	FC 73	C	52.00	60.00	8.00	SH	GRY		0	
7	FC 73	C	60.00	67.00	7.00	CO	SHY	UI	0	
8	FC 73	C	67.00	84.00	17.00	SH	GRY		0	
9	FC 73	C	84.00	110.00	26.00	SS			0	
10	FC 73	C	110.00	121.80	11.80	SH	DRK CRB		0	START CORE
11	FC 73	C	121.80	124.20	2.40	CO		LI	1	NOT IN ANAL
12	FC 73	C	124.20	131.10	6.90	SH	CRB		0	
13	FC 73	C	131.10	133.40	2.30	CO		LI	5	
14	FC 73	C	133.40	140.00	6.60	SH	DRK		0	
15	FC 73	C	140.00	178.00	38.00	SS			0	
16	FC 73	C	178.00	195.50	17.50	SH	DRK SDY CRB		0	
17	FC 73	C	195.50	213.00	17.50	SS	SHS		0	
18	FC 73	C	213.00	224.50	11.50	SH	DRK CRB		0	
19	FC 73	C	224.50	226.50	2.00	CO		G	0	
20	FC 73	C	226.50	229.71	3.21	SH	DRK CLY		0	
21	FC 73	C	229.71	229.81	.10	CO	SHY		0	
22	FC 73	C	229.81	234.39	4.58	SH	DRK CLY COS		0	
23	FC 73	C	234.39	234.50	.11	CO		D	0	
24	FC 73	C	234.50	236.02	1.52	CO	HRD	D	0	
25	FC 73	C	236.02	236.53	.51	SH	BLK COL	D	0	
26	FC 73	C	236.53	237.67	1.14	CO	HRD	D	0	
27	FC 73	C	237.67	238.01	.34	SH	BLK COL	D	0	
28	FC 73	C	238.01	244.00	5.99	CO	HRD	D	0	
29	FC 73	C	244.00	245.51	1.51	SH	DRK CLY COL		0	
30	FC 73	C	245.51	248.06	2.55	CO	HRD	C	0	
31	FC 73	C	248.06	248.24	.18	CO	DRK COL CLY	C	0	
32	FC 73	C	248.24	249.26	1.02	CO	HRD BNY SHY	C	0	
33	FC 73	C	249.26	249.48	.22	SH	BLK COL	C	0	
34	FC 73	C	249.48	250.04	.56	CO		C	0	
35	FC 73	C	250.04	250.67	.63	SH	BLK COS	C	0	
36	FC 73	C	250.67	251.59	.92	CO	HRD	C	0	

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
37	FC 73	C	251.59	251.90	.31	SH	BLK COL	C	0	
38	FC 73	C	251.90	252.60	.70	CO	HRD	C	0	
39	FC 73	C	252.60	252.83	.23	SH	BLK COS		0	
40	FC 73	C	252.83	252.94	.11	SS	BLK COS SHS		0	
41	FC 73	C	252.94	255.74	2.80	SS	LIT GRY		0	
42	FC 73	C	255.74	256.76	1.02	SH	BLK CLY		0	
43	FC 73	C	256.76	257.21	.45	SD			0	
44	FC 73	C	257.21	261.63	4.42	SH	BLK COL		0	
45	FC 73	C	261.63	262.17	.54	CO	SHY		0	
46	FC 73	C	262.17	262.76	.59	SH	BLK COL		0	
47	FC 73	C	262.76	264.77	2.01	CO	HRD	A	0	
48	FC 73	C	264.77	265.10	.33	SH	BLK BNY	A	0	
49	FC 73	C	265.10	272.90	7.80	CO	HRD BNY	A	0	
50	FC 73	C	272.90	273.34	.44	SH	BLK		0	
51	FC 73	C	273.34	273.50	.16	CO			0	
52	FC 73	C	273.50	273.60	.10	SS	BLK CRB		0	
53	FC 73	C	273.60	366.00	92.40	SS			0	
54	FC 73	C	366.00	389.50	23.50	SH	DRK		0	
55	FC 73	C	389.50	406.00	16.50	SS			0	
56	FC 73	C	406.00	475.00	69.00	SH	DRK SDY		0	
57	FC 73	C	475.00	515.00	40.00	SH	DRK		0	
58	FC 73	C	515.00	558.00	43.00	SH	DRK SDY		0	
59	FC 73	C	558.00	584.00	26.00	SH	DRK		0	
60	FC 73	C	584.00	588.00	4.00	SS	SHY		0	
61	FC 73	C	588.00	638.00	50.00	SH	DRK SDY BH		0	

				SEAM CODE	SAMP NO	SAMPLE DEPTH FROM	TO	ANALYSIS CODE	PROXIMATE ANALYSIS %MOIS	%VOL	%CARB	%ASH	%SUL	BTU	EQUIL. MOIST	F P
1	FC	73	D	CD	1	234.50	244.00	1	5.0	37.0	43.9	14.1	.82	11493	.00	F
2	FC	73	D	CD	1	234.50	244.00	2	.0	38.9	46.2	14.9	.86	12103	.00	F
3	FC	73	D	CD	1	234.50	244.00	3	.0	45.7	54.3	.0	.00	14219	.00	F
4	FC	73	D	CD	2	245.44	252.60	1	5.5	34.9	39.2	20.3	1.68	10478	.00	F
5	FC	73	D	CD	2	245.44	252.60	2	.0	36.9	41.5	21.5	1.78	11092	.00	F
6	FC	73	D	CD	2	245.44	252.60	3	.0	47.1	52.9	.0	.00	14135	.00	F
7	FC	73	D	A	3	263.90	265.10	1	6.4	23.0	22.2	48.4	2.23	5466	.00	F
8	FC	73	D	A	3	263.90	265.10	2	.0	24.6	23.7	51.6	2.38	5838	.00	F
9	FC	73	D	A	3	263.90	265.10	3	.0	50.8	49.7	.0	.00	12074	.00	F
10	FC	73	D	A	4	265.10	272.90	1	5.4	36.0	42.6	16.0	.97	11065	.00	F
11	FC	73	D	A	4	265.10	272.90	2	.0	38.0	45.0	17.0	1.03	11700	.00	F
12	FC	73	D	A	4	265.10	272.90	3	.0	45.8	54.2	.0	.00	14091	.00	F

				SEAM CODE	SAMP NO	ASH ANALYSIS SIO2	AL2O3	FE2O3	TIO2	P2O5	CAO	MGO	NA2O	K2O	SO3
1	FC	73	F	CD	1	54.01	25.78	5.19	1.21	.20	3.58	1.47	1.53	.54	5.74
2	FC	73	F	CD	2	52.79	24.31	9.54	1.72	.26	3.55	2.10	1.21	1.36	3.11
3	FC	73	F	A	3	65.71	22.74	6.23	1.23	.26	.65	1.09	1.85	1.18	.26
4	FC	73	F	A	4	49.85	26.54	5.02	1.09	.28	4.98	1.01	.91	.56	4.63

SEQ NO = 1 DRILL HOLE NO = FC 76 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 32

SECTION CODE = H2 SURFACE ELEV. = 5943.85 HOW DET. = 6

N-COORD = 193504 E-COORD = 2067150 SOURCE = 2 LOCATION = 1

THK CORED = .00 THK N-CORED = .00 USGS = WALKER FLAT SZE.CD. = 1

SEQ NO. = 2 DRILL HOLE NO = FC 76 FORMAT = B PROPERTY OR FARM = DRILLER = GILLAND L

DRILL CONTR = CONSOL DATE DRILLED = 1069

TWP OR PLACE = EMERY COMMENTS = CEMENT

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 76	C	.00	5.00	5.00	SM			0	
4	FC 76	C	5.00	100.00	95.00	SH	GRY		0	
5	FC 76	C	100.00	137.60	37.60	SS		TF	0	START CORE
6	FC 76	C	137.60	138.20	.60	CO			0	
7	FC 76	C	138.20	151.50	13.30	SH	CRB SDY		0	
8	FC 76	C	151.50	178.00	26.50	SS			0	
9	FC 76	C	178.00	195.50	17.50	SH	CRB SDY		0	
10	FC 76	C	195.50	201.80	6.30	SS			0	
17	FC 76	C	201.80	206.88	5.08	SS	GRY FGR		0	
18	FC 76	C	206.88	209.65	2.77	SH	BLK HRD CRB		0	
19	FC 76	C	209.65	209.65	.00	CO	EXH	J	0	
20	FC 76	C	209.65	211.50	1.85	SH	BLK CLY		0	
21	FC 76	C	211.50	211.60	.10	CO		UI	0	
22	FC 76	C	211.60	216.52	4.92	CO	HRD	UI	0	
23	FC 76	C	216.52	216.57	.05	SH	LIT	UI	0	
24	FC 76	C	216.57	216.90	.33	CO	HRD	UI	0	
25	FC 76	C	216.90	217.07	.17	CO	SHY	UI	0	
26	FC 76	C	217.07	217.29	.22	SH	BLK COL		0	
27	FC 76	C	217.29	220.93	3.64	CO	HRD	LI	1	
28	FC 76	C	220.93	222.95	2.02	SH	DRK		0	
29	FC 76	C	222.95	228.00	5.05	CO	HRD	LI	5	
30	FC 76	C	228.00	231.80	3.80	CO	HRD	LI	5	
31	FC 76	C	231.80	232.92	1.12	SH	DRK COS		0	
32	FC 76	C	232.92	233.93	1.01	SS	GRY		0	
33	FC 76	C	233.93	236.56	2.63	SH	BLK CLY		0	
34	FC 76	C	236.56	238.61	2.05	SH	DRK GRY SDY		0	
35	FC 76	C	238.61	241.80	3.19	SH	DRK GRY CLY BH		0	SSE

			SEAM CODE	SAMP NO	SAMPLE DEPTH FROM	SAMPLE DEPTH TO	ANALYSIS CODE	PROXIMATE ANALYSIS %MOIS	%VOL	%CARB	%ASH	%SUL	BTU	EQUIL. MOIST	F P
1	FC 76	D	IJ	1	211.80	218.00	1	5.2	36.8	50.7	7.4	.50	12595	.00	F
2	FC 76	D	IJ	1	211.80	218.00	2	.0	38.8	53.4	7.8	.53	13284	.00	F

3	FC	76	D	IJ	1	211.80	218.00	3	.0	42.1	57.9	.0	.00	14402	.00	F
4	FC	76	D	IJ	2	218.00	222.80	1	4.3	38.4	49.7	7.6	.33	12706	.00	F
5	FC	76	D	IJ	2	218.00	222.80	2	.0	40.1	51.9	7.9	.35	13281	.00	F
6	FC	76	D	IJ	2	218.00	222.80	3	.0	43.6	56.4	.0	.00	14423	.00	F
7	FC	76	D	IJ	3	222.80	231.80	1	4.4	38.9	52.5	4.2	.50	13313	.00	F
8	FC	76	D	IJ	3	222.80	231.80	2	.0	40.7	54.9	4.4	.52	13927	.00	F
9	FC	76	D	IJ	3	222.80	231.80	3	.0	42.5	57.5	.0	.00	14562	.00	F

				SEAM CODE	SAMP NO	ASH ANALYSIS SIO2	AL2O3	FE2O3	TIO2	P2O5	CAO	MGO	NA2O	K2O	SO3
1	FC	76	F	IJ	1	49.17	23.46	5.46	1.35	.43	7.31	1.59	1.97	.22	6.20
2	FC	76	F	IJ	2	50.32	24.55	4.27	1.47	.52	7.37	2.84	2.33	.16	6.13
3	FC	76	F	IJ	3	47.80	20.14	7.74	1.70	.61	5.81	3.08	3.36	.17	5.20

SEQ NO = 1 DRILL HOLE NO = FC 78 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 29

SECTION CODE = S2 SURFACE ELEV. = 5973.58 HOW DET. = 6

N-COORD = 195191 E-COORD = 2066474 SOURCE = 2 LOCATION = 2

THK CORED = .00 THK N-CORED = .00 USGS = WALKER FLAT SZE.CD. = 1

SEQ NO. = 2 DRILL HOLE NO = FC 78 FORMAT = B PROPERTY OR FARM = KEMMERER FEE DRILLER = DANIES CF

DRILL CONTR = DANIELS DATE DRILLED = 0771

TWP OR PLACE = EMERY COMMENTS =

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 78	C	.00	280.00	280.00	ND			0	
4	FC 78	C	280.00	320.40	40.40	SS		TF	0	
5	FC 78	C	320.40	320.90	.50	CO			0	
6	FC 78	C	320.90	327.00	6.10	SH			0	
7	FC 78	C	327.00	331.60	4.60	SS	GRY		0	
8	FC 78	C	331.60	332.50	.90	CO		J	0	
9	FC 78	C	332.50	336.80	4.30	SH	GRY		0	
10	FC 78	C	336.80	340.00	3.20	CL			0	
11	FC 78	C	340.00	340.80	.80	SH	GRY SDY		0	
12	FC 78	C	340.80	345.70	4.90	CO		UI	0	
13	FC 78	C	345.70	345.80	.10	SS		UI	0	
14	FC 78	C	345.80	347.20	1.40	CO		UI	0	
15	FC 78	C	347.20	347.30	.10	SS			0	
16	FC 78	C	347.30	350.60	3.30	CO		LI	1	
17	FC 78	C	350.60	350.65	.05	SH			0	
18	FC 78	C	350.65	360.60	9.95	CO		LI	5	
19	FC 78	C	360.60	361.20	.60	SH	BRN SDY		0	
20	FC 78	C	361.20	363.00	1.80	SH	GRY BH		0	

1
3.3
9.95
5
13.30

			SEAM CODE	SAMP NO	SAMPLE DEPTH FROM	SAMPLE DEPTH TO	ANALYSIS CODE	%MOIS	%VOL	%CARB	%ASH	%SUL	BTU	EQUIL. MOIST	F P
1	FC 78	D	IJ	1	340.80	341.80	1	3.6	36.9	45.2	14.2	1.22	11861	.00	F
2	FC 78	D	IJ	1	340.80	341.80	2	.0	38.7	46.9	14.7	1.27	12309	.00	F
3	FC 78	D	IJ	2	341.80	342.80	1	5.1	37.6	51.3	6.0	.75	12751	.00	F
4	FC 78	D	IJ	2	341.80	342.80	2	.0	39.7	54.1	6.3	.79	13435	.00	F
5	FC 78	D	IJ	3	342.80	343.80	1	3.9	38.1	50.2	7.8	1.86	12780	.00	F
6	FC 78	D	IJ	3	343.80	344.80	2	.0	40.4	53.4	6.2	.71	13299	.00	F
7	FC 78	D	IJ	4	343.80	344.80	1	4.6	38.5	51.0	5.9	.68	12691	.00	F
8	FC 78	D	IJ	4	343.80	344.80	2	.0	40.4	53.4	6.2	.71	13299	.00	F
9	FC 78	D	IJ	5	344.80	345.80	1	4.1	39.1	42.6	14.2	1.03	11652	.00	F
10	FC 78	D	IJ	5	344.80	345.80	2	.0	40.8	44.4	14.8	1.07	12153	.00	F
11	FC 78	D	IJ	6	345.80	346.80	1	3.9	42.1	43.3	10.7	.81	12428	.00	F

12	FC	78	D	IJ	6	345.80	346.80	2	.0	43.8	45.1	11.1	.84	12931	.00	F
13	FC	78	D	IJ	7	346.80	347.80	1	3.7	40.0	39.4	26.0	.68	9689	.00	F
14	FC	78	D	IJ	7	346.80	347.80	2	.0	32.2	40.9	27.0	.71	10058	.00	F
15	FC	78	D	IJ	8	347.80	348.80	1	4.1	40.8	49.9	5.2	.35	13111	.00	F
16	FC	78	D	IJ	8	347.80	348.80	2	.0	42.6	52.1	5.4	.37	13677	.00	F
17	FC	78	D	IJ	9	348.80	349.80	1	3.8	41.5	48.6	6.1	.50	13060	.00	F
18	FC	78	D	IJ	9	348.80	349.80	2	.0	43.2	50.5	6.4	.52	13572	.00	F
19	FC	78	D	IJ	0	349.80	350.80	1	3.7	38.3	43.7	14.3	.50	11662	.00	F
20	FC	78	D	IJ	0	349.80	350.80	2	.0	39.8	45.3	14.9	.52	12109	.00	F
21	FC	78	D	IJ	1	350.80	351.80	1	3.8	35.4	48.9	11.6	.40	12147	.00	F
22	FC	78	D	IJ	1	350.80	351.80	2	.0	36.9	51.0	12.1	.42	12649	.00	F
23	FC	78	D	IJ	2	351.80	352.80	1	3.7	38.2	49.8	8.3	.35	12724	.00	F
24	FC	78	D	IJ	2	351.80	352.80	2	.0	39.6	51.7	8.6	.36	13207	.00	F
25	FC	78	D	IJ	3	352.80	353.80	1	4.1	40.1	49.8	6.1	.33	13020	.00	F
26	FC	78	D	IJ	3	352.80	353.80	2	.0	41.8	51.9	6.4	.34	13570	.00	F
27	FC	78	D	IJ	4	353.80	354.80	1	3.8	40.7	46.8	8.8	.34	12699	.00	F
28	FC	78	D	IJ	4	353.80	354.80	2	.0	42.3	48.6	9.1	.35	13199	.00	F
29	FC	78	D	IJ	5	354.80	355.80	1	3.6	36.8	49.4	10.2	.38	12336	.00	F
30	FC	78	D	IJ	5	354.80	355.80	2	.0	38.2	51.2	10.6	.39	12790	.00	F
31	FC	78	D	IJ	6	355.80	356.80	1	3.8	37.8	52.3	6.1	.28	13019	.00	F
32	FC	78	D	IJ	6	355.80	356.80	2	.0	39.3	54.4	6.3	.29	13532	.00	F
33	FC	78	D	IJ	7	356.80	357.80	1	4.3	40.3	50.7	4.6	.31	13266	.00	F
34	FC	78	D	IJ	7	356.80	357.80	2	.0	42.1	53.0	4.8	.32	13866	.00	F
35	FC	78	D	IJ	8	357.80	358.80	1	4.0	39.4	51.0	5.6	.36	13092	.00	F
36	FC	78	D	IJ	8	357.80	358.80	2	.0	41.0	53.2	5.8	.37	13639	.00	F
37	FC	78	D	IJ	9	358.80	359.80	1	4.1	41.4	48.6	5.9	.38	13134	.00	F
38	FC	78	D	IJ	9	358.80	359.80	2	.0	43.2	50.7	6.1	.40	13696	.00	F
39	FC	78	D	IJ	0	359.80	360.60	1	3.7	41.8	47.5	6.9	.42	12977	.00	F
40	FC	78	D	IJ	0	359.80	360.60	2	.0	43.4	49.4	7.2	.44	13476	.00	F

SEQ NO = 1 DRILL HOLE NO = FC 79 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 29

SECTION CODE = L2 SURFACE ELEV. = 5972.72 HOW DET. = 6

N-COORD = 195537 E-COORD = 2065728 SOURCE = 2 LOCATION = 5

THK CORED = .00 THK N-CORED = .00 USGS = WALKER FLAT SZE.CD. = 1

SEQ NO. = 2 DRILL HOLE NO = FC 79 FORMAT = B PROPERTY OR FARM = BLM DRILLER = DANIELS WH

DRILL CONTR = DANIELS DATE DRILLED = 0771

TWP OR PLACE = EMERY COMMENTS =

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 79	C	.00	200.00	200.00	ND			0	
4	FC 79	C	200.00	302.60	102.60	SH	CLY		0	
6	FC 79	C	302.60	305.60	3.00	SS		TF	0	
7	FC 79	C	305.60	313.00	7.40	SS			0	
8	FC 79	C	313.00	317.20	4.20	SS			0	
9	FC 79	C	317.20	317.50	.30	SH	COS		0	
10	FC 79	C	317.50	317.80	.30	SH	BRN		0	
11	FC 79	C	317.80	319.20	1.40	ST			0	
12	FC 79	C	319.20	319.45	.25	SH	COS		0	
13	FC 79	C	319.45	320.95	1.50	CO		K	0	
14	FC 79	C	320.95	321.00	.05	PY		K	0	
15	FC 79	C	321.00	323.00	2.00	CO		K	0	
16	FC 79	C	323.00	323.75	.75	CO		K	0	
17	FC 79	C	323.75	324.55	.80	CL			0	
18	FC 79	C	324.55	333.00	8.45	SH	SDY		0	
19	FC 79	C	333.00	335.00	2.00	SH	SDY		0	
20	FC 79	C	335.00	343.00	8.00	ST			0	
21	FC 79	C	343.00	353.00	10.00	SH	SDY		0	
22	FC 79	C	353.00	354.20	1.20	ST			0	
23	FC 79	C	354.20	354.60	.40	SH	GR		0	
24	FC 79	C	354.60	356.70	2.10	CO			0	RIDER
25	FC 79	C	356.70	357.50	.80	SH			0	
26	FC 79	C	357.50	359.00	1.50	CO			0	RIDER
27	FC 79	C	359.00	363.00	4.00	ST			0	
28	FC 79	C	363.00	364.80	1.80	SH	SDY		0	
29	FC 79	C	364.80	373.70	8.90	SH			0	
30	FC 79	C	373.70	375.70	2.00	CO		J	0	RIDER
31	FC 79	C	375.70	376.80	1.10	SH			0	
32	FC 79	C	376.80	382.80	6.00	CO		UI	0	
33	FC 79	C	382.80	383.80	1.00	SH	CAR		0	
34	FC 79	C	383.80	396.60	12.80	CO		LI	0	
35	FC 79	C	396.60	410.40	13.80	SH			0	
36	FC 79	C	410.40	412.90	2.50	SS			0	
37	FC 79	C	412.90	417.00	4.10	SH	BH		0	

1	FC	79	D	IJ	1	376.80	377.80	1	4.0	36.1	47.8	12.1	.45	12093	.00	F
2	FC	79	D	IJ	1	376.80	377.80	2	.0	37.6	49.8	12.6	.47	12599	.00	F
3	FC	79	D	IJ	2	377.80	378.80	1	4.9	38.4	51.4	5.3	.41	12875	.00	F
4	FC	79	D	IJ	2	377.80	378.80	2	.0	40.4	54.1	5.6	.43	13543	.00	F
5	FC	79	D	IJ	3	378.80	379.80	1	4.4	36.4	51.7	7.4	.35	12701	.00	F
6	FC	79	D	IJ	3	378.80	379.80	2	.0	38.1	54.1	7.7	.37	13291	.00	F
7	FC	79	D	IJ	4	379.80	380.80	1	5.1	39.6	50.6	4.7	.29	12912	.00	F
8	FC	79	D	IJ	4	379.80	380.80	2	.0	41.7	53.3	5.0	.31	13609	.00	F
9	FC	79	D	IJ	5	380.80	381.80	1	3.9	41.2	49.3	5.6	.34	13255	.00	F
10	FC	79	D	IJ	5	380.80	381.80	2	.0	42.9	51.3	5.8	.35	13799	.00	F
11	FC	79	D	IJ	6	381.80	382.80	1	3.7	42.8	47.9	5.7	.29	13204	.00	F
12	FC	79	D	IJ	6	381.80	382.80	2	.0	44.4	49.7	5.9	.30	13707	.00	F
13	FC	79	D	IJ	7	382.80	383.80	1	3.7	31.2	34.6	30.5	.33	9010	.00	F
14	FC	79	D	IJ	7	382.80	383.80	2	.0	32.5	35.9	31.7	.34	9355	.00	F
15	FC	79	D	IJ	8	383.80	384.80	1	4.2	39.6	49.2	7.0	.23	12883	.00	F
16	FC	79	D	IJ	8	383.80	384.80	2	.0	41.3	51.4	7.3	.24	13442	.00	F
17	FC	79	D	IJ	9	384.80	385.80	1	4.1	39.8	51.8	4.3	.33	13370	.00	F
18	FC	79	D	IJ	9	384.80	385.80	2	.0	41.5	54.0	4.5	.34	13936	.00	F
19	FC	79	D	IJ	0	385.80	386.80	1	4.2	42.2	46.8	6.9	.28	12816	.00	F
20	FC	79	D	IJ	0	385.80	386.80	2	.0	44.0	48.9	7.2	.29	13371	.00	F
21	FC	79	D	IJ	1	286.80	287.80	1	4.3	37.6	48.7	9.4	.31	12446	.00	F
22	FC	79	D	IJ	1	386.80	387.80	2	.0	39.3	50.9	9.8	.32	13004	.00	F
23	FC	79	D	IJ	2	387.80	388.80	1	4.0	36.3	48.3	11.4	.33	12267	.00	F
24	FC	79	D	IJ	2	387.80	388.80	2	.0	37.8	50.3	11.9	.34	12774	.00	F
25	FC	79	D	IJ	3	388.80	389.80	1	3.1	40.0	50.8	6.1	.29	13151	.00	F
26	FC	79	D	IJ	3	388.80	389.80	2	.0	41.3	52.4	6.3	.30	13576	.00	F
27	FC	79	D	IJ	4	389.80	390.80	1	4.1	40.2	48.6	7.2	.31	12872	.00	F
28	FC	79	D	IJ	4	389.80	390.80	2	.0	41.9	50.6	7.5	.32	13420	.00	F
29	FC	79	D	IJ	5	390.80	391.80	1	4.0	39.3	42.0	14.8	.33	11458	.00	F
30	FC	79	D	IJ	5	390.80	391.80	2	.0	40.9	43.7	15.4	.34	11934	.00	F
31	FC	79	D	IJ	6	391.80	392.80	1	4.7	36.4	48.6	10.3	.34	12188	.00	F
32	FC	79	D	IJ	6	391.80	392.80	2	.0	38.2	51.1	10.8	.36	12790	.00	F
33	FC	79	D	IJ	7	392.80	393.80	1	4.6	38.9	52.3	4.2	.29	13386	.00	F
34	FC	79	D	IJ	7	392.80	393.80	2	.0	40.8	54.8	4.4	.30	14028	.00	F
35	FC	79	D	IJ	8	393.80	394.80	1	3.9	39.3	51.4	5.4	.31	13183	.00	F
36	FC	79	D	IJ	8	393.80	394.80	2	.0	40.9	53.5	5.7	.32	13722	.00	F
37	FC	79	D	IJ	9	394.80	395.80	1	4.6	41.8	50.6	3.0	.45	13449	.00	F
38	FC	79	D	IJ	9	394.80	395.80	2	.0	43.8	53.0	3.1	.47	14091	.00	F
39	FC	79	D	IJ	0	395.80	396.60	1	4.1	39.9	44.1	11.9	.43	12131	.00	F
40	FC	79	D	IJ	0	395.80	396.60	2	.0	41.6	46.0	12.4	.45	12646	.00	F

SEQ NO = 1 DRILL HOLE NO = FC 80 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 29

SECTION CODE = M6 SURFACE ELEV. = 6003.40 HOW DET. = 6

N-COORD = 197134 E-COORD = 2063895 SOURCE = 2 LOCATION = 5

THK CORED = .00 THK N-CORED = .00 USGS = WALKER FLAT SZE.CD. = 1

SEQ NO. = 2 DRILL HOLE NO = FC 80 FORMAT = B PROPERTY OR FARM = KEMMERER FEE DRILLER = DANIELS WH

DRILL CONTR = DANIELS DATE DRILLED = 0771

TWP OR PLACE = EMERY COMMENTS =

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 80	C	.00	240.00	240.00	SH			0	
4	FC 80	C	240.00	398.50	158.50	SH	CLS		0	
5	FC 80	C	398.50	450.30	51.80	SH			0	
6	FC 80	C	450.30	450.40	.10	CL	GRY		0	
7	FC 80	C	450.40	472.60	22.20	SH			0	
8	FC 80	C	472.60	475.00	2.40	SS		TF	0	
9	FC 80	C	475.00	478.60	3.60	CN			0	
10	FC 80	C	478.60	483.20	4.60	SS			0	
11	FC 80	C	483.20	486.80	3.60	ST			0	
12	FC 80	C	486.80	493.00	6.20	SS			0	
13	FC 80	C	493.00	518.10	25.10	SS			0	
14	FC 80	C	518.10	519.30	1.20	SS	SLY		0	
15	FC 80	C	519.30	522.45	3.15	SS			0	
16	FC 80	C	522.45	522.60	.15	CO			0	
17	FC 80	C	522.60	523.00	.40	SH	COS		0	
18	FC 80	C	523.00	524.50	1.50	SH			0	
19	FC 80	C	524.50	531.50	7.00	CO		K	0	
20	FC 80	C	531.50	531.90	.40	SH			0	
21	FC 80	C	531.90	533.00	1.10	CO		K	0	
22	FC 80	C	533.00	541.20	8.20	SH			0	
23	FC 80	C	541.20	543.00	1.80	SS			0	
24	FC 80	C	543.00	550.70	7.70	SH	GRY		0	
25	FC 80	C	550.70	551.90	1.20	SH	COS		0	
26	FC 80	C	551.90	554.70	2.80	SH			0	
27	FC 80	C	554.70	556.40	1.70	CO		J	0	
28	FC 80	C	556.40	557.70	1.30	SH	CLY		0	
29	FC 80	C	557.70	564.00	6.30	CO		UI	0	
30	FC 80	C	564.00	565.00	1.00	SH	CAR		0	
31	FC 80	C	565.00	571.50	6.50	CO		LI	1	
32	FC 80	C	571.50	573.00	1.50	SH			0	
33	FC 80	C	573.00	576.60	3.60	ST			0	
34	FC 80	C	576.60	579.00	2.40	CO	BH	LI	5	NOT IN ANAL

				SEAM CODE	SAMP NO	SAMPLE DEPTH FROM	TO	ANALYSIS CODE	PROXIMATE ANALYSIS %MOIS	%VOL	%CARB	%ASH	%SUL	BTU	EQUIL. MOIST	F P
1	FC	80	D	J	1	524.50	525.50	1	5.3	34.8	37.7	22.3	2.98	10210	.00	F
2	FC	80	D	J	1	524.50	525.50	2	.0	36.7	39.8	23.5	3.15	10777	.00	F
3	FC	80	D	J	2	525.50	526.50	1	6.3	41.8	47.0	4.9	2.76	12799	.00	F
4	FC	80	D	J	2	525.50	526.50	2	.0	44.6	50.1	5.3	2.95	13663	.00	F
5	FC	80	D	J	3	526.50	527.50	1	4.4	42.0	45.3	8.3	1.76	12605	.00	F
6	FC	80	D	J	3	526.50	527.50	2	.0	43.9	47.4	8.7	1.84	13187	.00	F
7	FC	80	D	J	4	527.50	528.50	1	4.9	41.3	48.6	5.2	1.77	12989	.00	F
8	FC	80	D	J	4	527.50	528.50	2	.0	43.4	51.1	5.5	1.86	13667	.00	F
9	FC	80	D	J	5	528.50	529.50	1	3.9	43.9	46.1	6.1	2.38	13029	.00	F
10	FC	80	D	J	5	528.50	529.50	2	.0	45.7	48.0	6.3	2.48	13555	.00	F
11	FC	80	D	J	6	529.50	530.50	1	4.3	41.9	48.2	5.6	2.57	10391	.00	F
12	FC	80	D	J	6	529.50	530.50	2	.0	43.8	50.4	5.8	1.64	13674	.00	F
13	FC	80	D	J	7	530.50	531.50	1	3.7	42.5	40.9	13.0	3.31	11947	.00	F
14	FC	80	D	J	7	530.50	531.50	2	.0	44.1	42.4	13.5	3.44	12403	.00	F
15	FC	80	D	J	8	531.50	532.50	1	3.6	26.1	20.4	49.9	2.17	5206	.00	F
16	FC	80	D	J	8	531.50	532.50	2	.0	27.1	21.2	51.8	2.25	5398	.00	F
17	FC	80	D	J	9	532.50	533.00	1	4.4	36.3	33.9	25.3	6.68	9801	.00	F
18	FC	80	D	J	9	532.50	533.00	2	.0	38.0	35.5	26.5	6.99	10252	.00	F
19	FC	80	D	I	0	553.00	554.00	1	3.5	10.1	2.9	83.5	.24	750	.00	F
20	FC	80	D	I	0	553.00	554.00	2	.0	40.5	3.0	86.5	.25	777	.00	F
21	FC	80	D	I	1	554.00	555.00	1	3.7	17.2	10.8	68.2	2.03	2896	.00	F
22	FC	80	D	I	1	554.00	555.00	2	.0	17.9	11.2	70.8	2.11	3007	.00	F
23	FC	80	D	I	2	555.00	556.00	1	6.7	23.0	26.5	43.8	.63	2465	.00	F
24	FC	80	D	I	2	555.00	556.00	2	.0	24.7	28.4	47.0	.67	2641	.00	F
25	FC	80	D	I	3	556.00	557.00	1	5.0	23.8	25.2	46.0	.35	6261	.00	F
26	FC	80	D	I	3	556.00	557.00	2	.0	25.0	26.5	48.5	.37	6594	.00	F
27	FC	80	D	I	4	557.00	558.00	1	4.6	15.2	6.9	73.3	.05	350	.00	F
28	FC	80	D	I	4	557.00	558.00	2	.0	15.9	7.2	76.9	.05	367	.00	F
29	FC	80	D	I	5	558.00	559.00	1	5.9	36.4	47.6	10.1	.46	12144	.00	F
30	FC	80	D	I	5	558.00	559.00	2	.0	38.7	50.6	10.7	.49	12903	.00	F
31	FC	80	D	I	6	559.00	560.00	1	4.8	37.7	51.0	6.5	.40	12874	.00	F
32	FC	80	D	I	6	559.00	560.00	2	.0	39.7	53.5	6.8	.42	13527	.00	F
33	FC	80	D	I	7	560.00	561.00	1	5.8	35.6	51.4	7.3	.38	12440	.00	F
34	FC	80	D	I	7	560.00	561.00	2	.0	37.8	54.5	7.7	.40	13209	.00	F
35	FC	80	D	I	8	561.00	562.00	1	5.3	32.5	54.4	7.8	.33	12549	.00	F
36	FC	80	D	I	8	561.00	562.00	2	.0	34.3	57.5	8.3	.35	13253	.00	F
37	FC	80	D	I	9	562.00	563.00	1	5.0	39.0	52.1	4.0	.29	13236	.00	F
38	FC	80	D	I	9	562.00	563.00	2	.0	41.0	54.8	4.2	.31	13930	.00	F
39	FC	80	D	I	0	563.00	564.00	1	5.2	39.2	45.5	10.2	.34	12212	.00	F
40	FC	80	D	I	0	563.00	564.00	2	.0	41.3	48.0	10.8	.36	12876	.00	F
41	FC	80	D	I	1	564.00	565.00	1	3.9	34.8	37.2	24.1	.26	10028	.00	F
42	FC	80	D	I	1	564.00	565.00	2	.0	36.3	38.7	25.1	.27	10434	.00	F
43	FC	80	D	I	2	565.00	566.00	1	4.8	33.9	48.4	12.8	.25	11899	.00	F
44	FC	80	D	I	2	565.00	566.00	2	.0	35.7	50.9	13.5	.26	12504	.00	F
45	FC	80	D	I	3	566.00	567.00	1	4.5	42.2	49.5	3.8	.30	13398	.00	F
46	FC	80	D	I	3	566.00	567.00	2	.0	44.2	51.8	4.0	.31	14025	.00	F
47	FC	80	D	I	4	567.00	568.00	1	4.5	39.9	51.8	3.8	.22	13419	.00	F
48	FC	80	D	I	4	567.00	568.00	2	.0	41.8	54.2	4.0	.23	14050	.00	F
49	FC	80	D	I	5	568.00	569.00	1	4.8	40.4	49.6	5.2	.31	12884	.00	F
50	FC	80	D	I	5	568.00	569.00	2	.0	42.4	52.1	5.5	.33	13535	.00	F
51	FC	80	D	I	6	569.00	570.00	1	4.7	38.0	43.6	13.8	.39	11666	.00	F
52	FC	80	D	I	6	569.00	570.00	2	.0	39.8	45.7	14.5	.41	12239	.00	F

53	FC	80	D	I	7	570.00	571.00	1	4.3	36.2	49.7	9.8	.37	12345	.00	F
54	FC	80	D	I	7	570.00	571.00	2	.0	37.8	52.0	10.2	.39	12905	.00	F
55	FC	80	D	I	8	571.00	572.00	1	3.5	36.9	44.4	15.3	.41	11791	.00	F
56	FC	80	D	I	8	571.00	572.00	2	.0	38.2	46.0	15.8	.42	12214	.00	F
57	FC	80	D	I	9	572.00	573.00	1	1.7	5.9	1.2	91.1	.21	267	.00	F
58	FC	80	D	I	8	572.00	573.00	2	.0	6.0	1.2	92.7	.21	272	.00	F

SEQ NO = 1 DRILL HOLE NO = FC 82 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 32

SECTION CODE = S1 SURFACE ELEV. = 6018.92 HOW DET. = 6

N-COORD = 190119 E-COORD = 2067317 SOURCE = 2 LOCATION = 5

THK CORED = .00 THK N-CORED = .00 USGS = WALKER FLAT SZE.CD. = 1

SEQ NO. = 2 DRILL HOLE NO = FC 82 FORMAT = B PROPERTY OR FARM = KEMMERER FEE DRILLER = DANIELS

DRILL CONTR = DANIELS DATE DRILLED = 0771

TWP OR PLACE = EMERY COMMENTS = NOT DEEP ENOUGH

SEQ NO.	DRILL HOLE NUMBER		FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC	82	C	.00	3.50	3.50	SS			0	
4	FC	82	C	3.50	5.50	2.00	SS	HRD		0	
5	FC	82	C	5.50	11.00	5.50	SS			0	
6	FC	82	C	11.00	15.00	4.00	SS	HRD		0	
7	FC	82	C	15.00	20.00	5.00	SS			0	
8	FC	82	C	20.00	54.50	34.50	SS	TAN		0	
9	FC	82	C	54.50	55.50	1.00	SH	GRY		0	
10	FC	82	C	55.50	60.00	4.50	SS	TAN		0	
11	FC	82	C	60.00	62.00	2.00	SS	TAN		0	
12	FC	82	C	62.00	67.00	5.00	SS	GRY		0	
13	FC	82	C	67.00	68.00	1.00	SH	GRY		0	
14	FC	82	C	68.00	99.50	31.50	SS	GRY		0	
15	FC	82	C	99.50	100.00	.50	SH	COS		0	
16	FC	82	C	100.00	105.10	5.10	SH	GRY		0	
17	FC	82	C	105.10	106.20	1.10	CL			0	
18	FC	82	C	106.20	107.30	1.10	CO	SHY	UI	0	I SPLIT
19	FC	82	C	107.30	108.30	1.00	CL			0	NOT IN ANAL
20	FC	82	C	108.30	114.20	5.90	CO		UI	0	NOT IN ANAL
21	FC	82	C	114.20	114.50	.30	SH	COS		0	
22	FC	82	C	114.50	115.40	.90	CL			0	
23	FC	82	C	115.40	120.00	4.60	SH			0	
24	FC	82	C	120.00	127.40	7.40	CL			0	
25	FC	82	C	127.40	130.00	2.60	ST		BH	0	

				SEAM CODE	SAMP NO	SAMPLE DEPTH FROM	SAMPLE DEPTH TO	ANALYSIS CODE	PROXIMATE ANALYSIS %MOIS	%VOL	%CARB	%ASH	%SUL	BTU	EQUIL. MOIST	F P
1	FC	82	D	J	1	106.20	107.40	1	4.4	39.6	37.0	18.9	2.66	10810	.00	F
2	FC	82	D	J	1	106.20	107.40	2	.0	41.5	38.8	19.8	2.78	11315	.00	F
3	FC	82	D	J	2	108.40	109.40	1	5.1	39.7	40.1	15.1	1.66	11288	.00	F
4	FC	82	D	J	2	108.40	109.40	2	.0	41.8	42.3	15.9	1.75	11898	.00	F
5	FC	82	D	J	3	109.40	110.40	1	5.0	38.3	49.0	7.7	1.23	12357	.00	F
6	FC	82	D	J	3	109.40	110.40	2	.0	46.8	48.7	4.5	1.40	13813	.00	F

7	FC	82	D	J	4	110.40	111.40	1	5.0	38.3	49.0	7.7	1.23	12357	.00	F
8	FC	82	D	J	4	110.40	111.40	2	.0	40.4	51.5	8.1	1.29	13011	.00	F
9	FC	82	D	J	5	111.40	112.40	1	4.3	39.1	47.7	8.8	2.14	12446	.00	F
10	FC	82	D	J	5	111.40	112.40	2	.0	40.9	49.9	9.2	2.24	13011	.00	F
11	FC	82	D	J	6	112.40	113.40	1	4.6	39.0	48.0	8.3	.95	12276	.00	F
12	FC	82	D	J	6	112.40	113.40	2	.0	40.9	50.4	8.7	1.00	12875	.00	F
13	FC	82	D	J	7	113.40	114.20	1	4.5	44.8	42.7	8.0	2.48	12543	.00	F
14	FC	82	D	J	7	113.40	114.20	2	.0	46.9	44.7	8.4	2.60	13129	.00	F

SEQ NO = 1 DRILL HOLE NO = FC 117 FORMAT = A STATE = 43 COUNTY = 015 TWP = 23S RANGE = 6E SECTION = 09

SECTION CODE = B8 SURFACE ELEV. = 6266.65 HOW DET. = 6

N-COORD = 179442 E-COORD = 2068552 SOURCE = 2 LOCATION = 1

THK CORED = .00 THK N-CORED = .00 USGS = WALKER FLAT SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 117 FORMAT = B PROPERTY OR FARM = DRILLER = P. ANDERSON

DRILL CONTR = DATE DRILLED = 0772

TWP OR PLACE = STRIP 2 COMMENTS =

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 117	C	.00	62.00	62.00	OB			0	
4	FC 117	C	62.00	64.00	2.00	CO		UI	0	
5	FC 117	C	64.00	102.60	38.60	IN			0	
6	FC 117	C	102.60	110.40	7.80	CO		LI	0	
7	FC 117	C	110.40	139.00	28.60	SS			0	
8	FC 117	C	139.00	190.00	51.00	ST			0	
9	FC 117	C	190.00	210.00	20.00	SS			0	
11	FC 117	C	210.00	240.00	30.00	SS			0	
12	FC 117	C	240.00	240.00	.00	CO	EXH	G	0	
13	FC 117	C	240.00	245.40	5.40	SH			0	
14	FC 117	C	245.40	255.00	9.60	CO		D	0	
15	FC 117	C	255.00	256.70	1.70	PT			0	
16	FC 117	C	256.70	261.10	4.40	CO		C	0	
17	FC 117	C	261.10	262.20	1.10	SH	COL	C	0	
18	FC 117	C	262.20	263.70	1.50	CO		C	0	
19	FC 117	C	263.70	267.30	3.60	PT			0	
20	FC 117	C	267.30	267.90	.60	CO		A	0	
21	FC 117	C	267.90	268.70	.80	PT		A	0	
22	FC 117	C	268.70	270.00	1.30	CO		A	0	
23	FC 117	C	270.00	271.10	1.10	PT		A	0	
24	FC 117	C	271.10	277.10	6.00	CO		A	0	
25	FC 117	C	277.10	300.00	22.90	IN	BH		0	

SEQ NO = 1 DRILL HOLE NO = FC 122 FORMAT = A STATE = 43 COUNTY = 015 TWP = 23S RANGE = 6E SECTION = 09

SECTION CODE = SURFACE ELEV. = 6329.85 HOW DET. = 6

N-COORD = 178747 E-COORD = 2070460 SOURCE = 2 LOCATION = 1

THK CORED = .00 THK N-CORED = .00 USGS = WALKER FLAT SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 122 FORMAT = B PROPERTY OR FARM = DRILLER = P. ANDERSON

DRILL CONTR = DATE DRILLED = 0772

TWP OR PLACE = STRIP 2 COMMENTS =

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 122	C	.00	18.90	18.90	OB			0	
4	FC 122	C	18.90	20.50	1.60	CO	SHY	UI	0	
5	FC 122	C	20.50	115.00	94.50	IN			0	
6	FC 122	C	115.00	115.70	.70	CO	SHY	LI	0	BURNED
7	FC 122	C	115.70	212.70	97.00	IN			0	
8	FC 122	C	212.70	214.40	1.70	CO		G	0	
9	FC 122	C	214.40	218.20	3.80	PT			0	
10	FC 122	C	218.20	228.30	10.10	CO		D	0	
11	FC 122	C	228.30	230.30	2.00	PT			0	
12	FC 122	C	230.30	237.50	7.20	CO	SHY	C	0	
13	FC 122	C	237.50	239.50	2.00	PT			0	
14	FC 122	C	239.50	249.60	10.10	CO		A	0	
15	FC 122	C	249.60	270.00	20.40	IN	BH		0	

SEQ NO = 1 DRILL HOLE NO = FC 134 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 23

SECTION CODE = N7 SURFACE ELEV. = 6130.87 HOW DET. = 6

N-COORD = 204738 E-COORD = 2081469 SOURCE = 2 LOCATION = 1

THK CORED = .00 THK N-CORED = .00 USGS = EMERY EAST SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 134 FORMAT = B PROPERTY OR FARM = DRILLER = P. ANDERSON

DRILL CONTR = DATE DRILLED = 0772

TWP OR PLACE = STRIP 1 COMMENTS =

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 134	C	.00	167.00	167.00	OB			0	
4	FC 134	C	167.00	174.00	7.00	CO		UI	0	SO2 GAS
5	FC 134	C	174.00	182.00	8.00	IN			0	
7	FC 134	C	182.00	200.00	18.00	IN	BH		0	

SEQ NO = 1 DRILL HOLE NO = FC 142 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 32

SECTION CODE = SURFACE ELEV. = 6006.73 HOW DET. = 6

N-COORD = 190836 E-COORD = 2067737 SOURCE = 2 LOCATION = 1

THK CORED = .00 THK N-CORED = .00 USGS = SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 142 FORMAT = B PROPERTY OR FARM = DRILLER = P ANDERSON

DRILL CONTR = DATE DRILLED = 0872

TWP OR PLACE = COMMENTS =

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 142	C	.00	45.00	45.00	SM			0	
4	FC 142	C	45.00	45.00	.00	SS		TF	0	
5	FC 142	C	45.00	63.42	18.42	SS			0	
6	FC 142	C	63.42	71.00	7.58	SS	GRY		0	
7	FC 142	C	71.00	76.42	5.42	SS	BRN		0	
8	FC 142	C	76.42	80.00	3.58	SS	GRY		0	
9	FC 142	C	80.00	82.00	2.00	SS	GRY		0	
10	FC 142	C	82.00	88.00	6.00	SS	BRN		0	
11	FC 142	C	88.00	89.00	1.00	SS	GRY		0	
12	FC 142	C	89.00	90.00	1.00	SH	GRY SDY		0	
13	FC 142	C	90.00	95.00	5.00	SS	BRN		0	
14	FC 142	C	95.00	111.42	16.42	SS	GRY		0	
15	FC 142	C	111.42	113.42	2.00	SH	CRB COL		0	STRINGERS
16	FC 142	C	113.42	117.67	4.25	SH	GRY		0	
17	FC 142	C	117.67	118.00	.33	CO		J	0	
18	FC 142	C	118.00	119.67	1.67	SH	GRY		0	
19	FC 142	C	119.67	125.58	5.91	CO		UI	0	
20	FC 142	C	125.58	130.42	4.84	SH	GRY SDY		0	
21	FC 142	C	130.42	130.67	.25	SH	CRB		0	
22	FC 142	C	130.67	142.67	12.00	CO		LI	0	
23	FC 142	C	142.67	149.42	6.75	SH	GRY SDY		0	
24	FC 142	C	149.42	150.42	1.00	SS	GRY		0	
25	FC 142	C	150.42	155.00	4.58	SH	GRY SDY		0	
26	FC 142	C	155.00	156.00	1.00	SH	CRB		0	
27	FC 142	C	156.00	171.00	15.00	SH	GRY		0	
28	FC 142	C	171.00	179.42	8.42	SS	GRY		0	
29	FC 142	C	179.42	180.00	.58	SH	GRY SDY BH		0	

SEQ NO = 1 DRILL HOLE NO = FC 143 FORMAT = A STATE = 43 COUNTY = 015 TWP = 23S RANGE = 6E SECTION = 04

SECTION CODE = SURFACE ELEV. = 6163.41 HOW DET. = 6

N-COORD = 187557 E-COORD = 2069071 SOURCE = 2 LOCATION = 1

THK CORED = .00 THK N-CORED = .00 USGS = SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 143 FORMAT = B PROPERTY OR FARM = DRILLER = ANDERSON

DRILL CONTR = DATE DRILLED = 0872

TWP OR PLACE = STRIP 2 COMMENTS =

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 143	C	.00	6.00	6.00	SS	BRN		0	
4	FC 143	C	6.00	9.00	3.00	SH	GRY SDY		0	
5	FC 143	C	9.00	38.50	29.50	SS	BRN		0	
6	FC 143	C	38.50	38.70	.20	SH	GRY SDY		0	
7	FC 143	C	38.70	43.80	5.10	SS	BRN		0	
8	FC 143	C	43.80	44.00	.20	SH	CRB		0	
9	FC 143	C	44.00	78.00	34.00	SS	BRN		0	
10	FC 143	C	78.00	78.70	.70	SS	RED		0	
11	FC 143	C	78.70	84.80	6.10	SH	GRY SDY		0	
12	FC 143	C	84.80	86.80	2.00	SH	CRB		0	
13	FC 143	C	86.80	94.80	8.00	SH	GRY SDY		0	
14	FC 143	C	94.80	99.00	4.20	CO		UI	0	
15	FC 143	C	99.00	99.10	.10	SH	CRB	UI	0	
16	FC 143	C	99.10	100.00	.90	CO		UI	0	
17	FC 143	C	100.00	102.00	2.00	SH	GRY SDY		0	
18	FC 143	C	102.00	128.50	26.50	SS	GRY		0	
19	FC 143	C	128.50	128.55	.05	CO			0	RIDER
20	FC 143	C	128.55	132.40	3.85	SS	GRY		0	
21	FC 143	C	132.40	132.60	.20	CO			0	RIDER
22	FC 143	C	132.60	134.80	2.20	SH	CRB		0	
23	FC 143	C	134.80	137.50	2.70	CO		LI	1	
24	FC 143	C	137.50	137.70	.20	SH	CRB		0	
25	FC 143	C	137.70	146.90	9.20	CO		LI	5	
26	FC 143	C	146.90	149.50	2.60	SH	GRY SDY		0	
27	FC 143	C	149.50	180.00	30.50	SS	GRY		0	
28	FC 143	C	180.00	185.50	5.50	SH	GRY SDY		0	
29	FC 143	C	185.50	216.50	31.00	SS	GRY		0	
30	FC 143	C	216.50	230.50	14.00	SH	GRY SDY		0	
31	FC 143	C	230.50	231.50	1.00	SH	CRB		0	
32	FC 143	C	231.50	234.80	3.30	SS	GRY		0	
33	FC 143	C	234.80	238.00	3.20	SH	GRY SDY		0	
34	FC 143	C	238.00	238.50	.50	SH	CRB		0	
35	FC 143	C	238.50	239.00	.50	CO		G	0	
36	FC 143	C	239.00	239.30	.30	SH	CRB	G	0	

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
37	FC 143	C	239.30	242.80	3.50	CO		G	0	
38	FC 143	C	242.80	243.50	.70	SH	CRB	G	0	
39	FC 143	C	243.50	243.80	.30	CO		G	0	
40	FC 143	C	243.80	249.70	5.90	SH	GRY SDY		0	
41	FC 143	C	249.70	250.90	1.20	CO			0	
42	FC 143	C	250.90	258.00	7.10	SH	GRY SDY		0	
43	FC 143	C	258.00	258.50	.50	SH	CRB		0	
44	FC 143	C	258.50	259.30	.80	CO		D	0	
45	FC 143	C	259.30	260.00	.70	SH	CRB	D	0	
46	FC 143	C	260.00	264.80	4.80	CO		D	0	
47	FC 143	C	264.80	266.50	1.70	SH	GRY SDY		0	
48	FC 143	C	266.50	269.40	2.90	CO		C	0	
49	FC 143	C	269.40	269.50	.10	SH	GRY	C	0	
50	FC 143	C	269.50	271.20	1.70	CO		C	0	
51	FC 143	C	271.20	271.80	.60	SH	GRY	C	0	
52	FC 143	C	271.80	274.20	2.40	CO		C	0	
53	FC 143	C	274.20	285.50	11.30	SH	GRY SDY		0	
54	FC 143	C	285.50	285.70	.20	CO			0	RIDER
55	FC 143	C	285.70	287.00	1.30	SH	GRY		0	
56	FC 143	C	287.00	288.00	1.00	CO			0	RIDER
57	FC 143	C	288.00	288.90	.90	SH	CRB		0	
58	FC 143	C	288.90	292.80	3.90	SH	GRY SDY		0	
59	FC 143	C	292.80	292.90	.10	CO			0	RIDER
60	FC 143	C	292.90	293.70	.80	SH	GRY SDY		0	
61	FC 143	C	293.70	299.30	5.60	CO		A	0	
62	FC 143	C	299.30	301.00	1.70	SH	GRY SDY		0	
63	FC 143	C	301.00	308.00	7.00	SS	GRY BH		0	

SEQ NO = 1 DRILL HOLE NO = FC 159 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 27

SECTION CODE = SURFACE ELEV. = 6072.91 HOW DET. = 6

N-COORD = 195899 E-COORD = 2075194 SOURCE = 5 LOCATION = 2

THK CORED = .00 THK N-CORED = .00 USGS = EMERY EAST SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 159 FORMAT = B PROPERTY OR FARM = DRILLER = B KRUG

DRILL CONTR = DATE DRILLED = 0373

TWP OR PLACE = STRIP 1 COMMENTS = SEE FC 159 A & B

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 159	C	.00	3.50	3.50	SH			0	
4	FC 159	C	3.50	47.40	43.90	SS			0	
5	FC 159	C	47.40	50.90	3.50	CO		J	0	
6	FC 159	C	50.90	51.10	.20	SH			0	
7	FC 159	C	51.10	59.00	7.90	CO		UI	0	
8	FC 159	C	59.00	71.60	12.60	CO		LI	0	
9	FC 159	C	71.60	80.00	8.40	SS	BH		0	

SEQ NO = 1 DRILL HOLE NO = FC 167A FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 27

SECTION CODE = SURFACE ELEV. = 6051.28 HOW DET. = 6

N-COORD = 197757 E-COORD = 2075294 SOURCE = 2 LOCATION = 6

THK CORED = 107.42 THK N-CORED = 19.00 USGS = SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 167A FORMAT = B PROPERTY OR FARM = DRILLER = B KRUG

DRILL CONTR = DATE DRILLED = 0373

TWP OR PLACE = STRIP 1 COMMENTS =

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 167A	C	.00	19.00	19.00	SM			0	PLUGGED
4	FC 167A	C	19.00	24.30	5.30	SH			0	SOFT GUMMY
5	FC 167A	C	24.30	28.60	4.30	ND			0	LOST CORE
6	FC 167A	C	28.60	30.60	2.00	SH	SFT		0	
7	FC 167A	C	30.60	31.00	.40	SH	FRK		0	
8	FC 167A	C	31.00	32.16	1.16	SH	FRK SDY		0	
9	FC 167A	C	32.16	32.94	.78	SS	SHY BND		0	
10	FC 167A	C	32.94	33.39	.45	SS			0	
11	FC 167A	C	33.39	33.69	.30	SS	CRB SHY		0	
12	FC 167A	C	33.69	35.24	1.55	SS			0	
13	FC 167A	C	35.24	36.14	.90	SS	COL		0	STRINGERS
14	FC 167A	C	36.14	37.16	1.02	SS			0	
15	FC 167A	C	37.16	37.36	.20	SS	COL BND		0	
16	FC 167A	C	37.36	37.86	.50	SS			0	
17	FC 167A	C	37.86	38.56	.70	SH	FRK GRY		0	
18	FC 167A	C	38.56	39.04	.48	SS			0	
19	FC 167A	C	39.04	39.24	.20	SS	COL BND		0	
20	FC 167A	C	39.24	40.36	1.12	SS	SHY		0	STRINGER
21	FC 167A	C	40.36	47.52	7.16	SS	GRY		0	
22	FC 167A	C	47.52	50.24	2.72	SS	GRY		0	
23	FC 167A	C	50.24	50.91	.67	SS	SHY		0	STRINGERS
24	FC 167A	C	50.91	53.66	2.75	SS			0	
25	FC 167A	C	53.66	54.16	.50	SS	COL		0	STRINGERS
26	FC 167A	C	54.16	54.91	.75	SS			0	
27	FC 167A	C	54.91	55.16	.25	SS	COL		0	STRINGER
28	FC 167A	C	55.16	57.53	2.37	SS			0	
29	FC 167A	C	57.53	59.26	1.73	SS			0	
30	FC 167A	C	59.26	59.38	.12	SS	COL		0	STRINGERS
31	FC 167A	C	59.38	67.19	7.81	SS			0	
32	FC 167A	C	67.19	75.38	8.19	SS			0	
33	FC 167A	C	75.38	75.42	.04	SS	COL		0	STRINGERS
34	FC 167A	C	75.42	77.11	1.69	SS			0	
35	FC 167A	C	77.11	77.49	.38	SS	FRK		0	
36	FC 167A	C	77.49	79.34	1.85	SS	CRB SHY		0	STRINGERS

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
37	FC 167A	C	79.34	82.34	3.00	SS			0	
38	FC 167A	C	82.34	86.92	4.58	SS	CRB SHY		0	BAND
39	FC 167A	C	86.92	87.17	.25	SS	CRB SHY COL		0	BAND
40	FC 167A	C	87.17	87.41	.24	CO	SHY	J	0	
41	FC 167A	C	87.41	87.47	.06	SH		J	0	
42	FC 167A	C	87.47	89.37	1.90	CO	SHY BND	J	0	
43	FC 167A	C	89.37	89.97	.60	SH	BLK		0	
44	FC 167A	C	89.97	90.47	.50	CO	BLK SHY		0	
45	FC 167A	C	90.47	91.57	1.10	SH	GRY SFT		0	
46	FC 167A	C	91.57	96.20	4.63	CO	SHY	UI	0	STRINGERS
47	FC 167A	C	96.20	96.27	.07	SH			0	
48	FC 167A	C	96.27	96.91	.64	CO	SHY BND	LI	0	BAND
49	FC 167A	C	96.91	97.31	.40	CO		LI	0	
50	FC 167A	C	97.31	97.81	.50	CO	SHY	LI	0	
51	FC 167A	C	97.81	100.20	2.39	CO		LI	0	
52	FC 167A	C	100.20	100.26	.06	SH		LI	0	
53	FC 167A	C	100.26	103.78	3.52	CO		LI	0	
54	FC 167A	C	103.78	103.94	.16	CO	PYT	LI	0	
55	FC 167A	C	103.94	104.74	.80	CO		LI	0	
56	FC 167A	C	104.74	104.76	.02	SH		LI	0	
57	FC 167A	C	104.76	106.91	2.15	CO		LI	0	
58	FC 167A	C	106.91	110.17	3.26	CO		LI	0	
59	FC 167A	C	110.17	110.89	.72	SH	COL SH		0	
60	FC 167A	C	110.89	116.89	6.00	SH	SDY		0	
61	FC 167A	C	116.89	118.38	1.49	SH	SFT		0	
62	FC 167A	C	118.38	121.96	3.58	SH			0	
63	FC 167A	C	121.96	126.42	4.46	ST		BH	0	

			SEAM CODE	SAMP NO	SAMPLE DEPTH FROM	SAMPLE DEPTH TO	ANALYSIS CODE	PROXIMATE ANALYSIS %MOIS	%VOL	%CARB	%ASH	%SUL	BTU	EQUIL. MOIST	F P
1	FC 167A	D	IJ	1	87.17	89.37	1	2.9	36.6	40.5	20.0	4.51	10793	.00	F
2	FC 167A	D	IJ	2	89.37	90.47	1	2.6	36.3	37.7	23.5	4.77	10364	.00	F
3	FC 167A	D	IJ	4	91.57	93.57	1	3.3	36.9	43.7	16.2	2.68	11401	.00	F
4	FC 167A	D	IJ	5	93.57	95.57	1	3.5	37.3	51.1	8.0	2.27	12664	.00	F
5	FC 167A	D	IJ	6	95.57	97.57	1	3.2	37.6	46.2	13.0	1.61	11999	.00	F
6	FC 167A	D	IJ	7	97.57	99.57	1	3.1	36.1	47.6	13.2	1.46	11903	.00	F
7	FC 167A	D	IJ	8	99.57	101.57	1	3.5	38.9	50.2	7.4	1.21	12786	.00	F
8	FC 167A	D	IJ	9	101.57	103.57	1	3.5	37.6	51.0	7.8	1.11	12737	.00	F
9	FC 167A	D	IJ	0	103.57	105.57	1	3.9	38.2	48.8	9.1	.99	12491	.00	F
10	FC 167A	D	IJ	1	105.57	107.57	1	3.4	36.3	54.2	6.0	.70	13032	.00	F
11	FC 167A	D	IJ	2	107.57	110.07	1	3.7	39.4	52.0	4.9	.61	13217	.00	F

			SEAM CODE	SAMP NO	ULTIMATE ANALYSIS C	H2	N	CL	O2	FSI	GRINDABILITY	ASH SOFTENING TEMP. A	B	C	D
1	FC 167A	E	IJ	1	.0	.0	.0	.0	.0	1.0	.0	2190	2380	2400	2550
2	FC 167A	E	IJ	2	.0	.0	.0	.0	.0	1.0	.0	2120	2500	2540	2560
3	FC 167A	E	IJ	4	.0	.0	.0	.0	.0	3.0	.0	2230	2440	2460	2540

			SEAM CODE	SAMP NO	ULTIMATE ANALYSIS C	H2	N	CL	O2	FSI	GRINDABILITY	ASH SOFTENING TEMP. A	B	C	D
4	FC 167A	E	IJ	5	.0	.0	.0	.0	.0	2.0	.0	2250	2380	2400	2570
5	FC 167A	E	IJ	6	.0	.0	.0	.0	.0	1.0	.0	2450	2640	2680	2700
6	FC 167A	E	IJ	7	.0	.0	.0	.0	.0	1.0	.0	2450	2640	2650	2700
7	FC 167A	E	IJ	8	.0	.0	.0	.0	.0	1.0	.0	2440	2460	2480	2500
8	FC 167A	E	IJ	9	.0	.0	.0	.0	.0	1.0	.0	2200	2400	2420	2510
9	FC 167A	E	IJ	0	.0	.0	.0	.0	.0	1.0	.0	2180	2220	2240	2400
10	FC 167A	E	IJ	1	.0	.0	.0	.0	.0	1.0	.0	2120	2190	2210	2380
11	FC 167A	E	IJ	2	.0	.0	.0	.0	.0	1.0	.0	2090	2280	2300	2360

SEQ NO = 1 DRILL HOLE NO = FC 178 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 23

SECTION CODE = SURFACE ELEV. = 6137.57 HOW DET. = 6

N-COORD = 203737 E-COORD = 2082553 SOURCE = 5 LOCATION = 2

THK CORED = .00 THK N-CORED = .00 USGS = EMERY EAST SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 178 FORMAT = B PROPERTY OR FARM = DRILLER = P. ANDERSON

DRILL CONTR = DATE DRILLED = 0473

TWP OR PLACE = STRIP 1 COMMENTS = CORE

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 178	C	.00	5.00	5.00	SS	BRN		0	
4	FC 178	C	5.00	9.00	4.00	SH	GRY		0	
5	FC 178	C	9.00	25.50	16.50	SS	GRY		0	
6	FC 178	C	25.50	26.00	.50	SH	GRY		0	
7	FC 178	C	26.00	32.00	6.00	SS	GRY		0	
8	FC 178	C	32.00	38.00	6.00	SH	GRY SDY		0	
9	FC 178	C	38.00	42.00	4.00	SS	GRY		0	
10	FC 178	C	42.00	45.00	3.00	SH	GRY		0	
11	FC 178	C	45.00	45.66	.66	SH	GRY		0	
12	FC 178	C	45.66	45.76	.10	CO		UI	0	
13	FC 178	C	45.76	45.79	.03	SH	CRB	UI	0	
14	FC 178	C	45.79	47.04	1.25	CO		UI	0	
15	FC 178	C	47.04	47.09	.05	SS	GRY	UI	0	
16	FC 178	C	47.09	47.71	.62	CO		UI	0	
17	FC 178	C	47.71	47.81	.10	SH	CRB	UI	0	
18	FC 178	C	47.81	51.70	3.89	CO		UI	0	
19	FC 178	C	51.70	51.80	.10	SH	CRB	UI	0	
20	FC 178	C	51.80	55.00	3.20	SH	GRY		0	
21	FC 178	C	55.00	57.00	2.00	SH	GRY		0	
22	FC 178	C	57.00	58.00	1.00	SH	CRB		0	CARB
23	FC 178	C	58.00	59.70	1.70	CO		LI	1	
24	FC 178	C	59.70	65.00	5.30	SS	GRY		0	
25	FC 178	C	65.00	66.50	1.50	SH	GRY SDY		0	
26	FC 178	C	66.50	68.00	1.50	CO		LI	3	
27	FC 178	C	68.00	87.00	19.00	SS	GRY		0	
28	FC 178	C	87.00	88.70	1.70	CO		LI	5	
29	FC 178	C	88.70	90.00	1.30	SH	GRY		0	
30	FC 178	C	90.00	90.70	.70	CO			0	
31	FC 178	C	90.70	92.00	1.30	SH	GRY		0	
32	FC 178	C	92.00	120.00	28.00	SS	GRY BH		0	

			SEAM CODE	SAMP NO	SAMPLE DEPTH FROM	TO	ANALYSIS CODE	PROXIMATE ANALYSIS %MOIS	%VOL	%CARB	%ASH	%SUL	BTU	EQUIL. MOIST	F P
1	FC 178	D	J	1	45.66	47.66	1	3.1	38.0	42.2	16.6	4.45	11421	.00	F
2	FC 178	D	J	1	45.66	47.66	2	.0	39.2	43.6	17.2	4.59	11789	.00	F
3	FC 178	D	J	2	47.66	49.66	1	3.5	38.0	43.4	15.1	2.67	11565	.00	F
4	FC 178	D	J	2	47.66	49.66	2	.0	39.4	44.9	15.7	2.77	11978	.00	F
5	FC 178	D	J	3	49.66	51.80	1	3.3	41.6	46.6	8.5	3.71	12674	.00	F
6	FC 178	D	J	3	49.66	51.80	2	.0	43.0	48.2	8.8	3.84	13108	.00	F

SEQ NO = 1 DRILL HOLE NO = FC 190 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 32

SECTION CODE = SURFACE ELEV. = 5969.44 HOW DET. = 6

N-COORD = 189595 E-COORD = 2064961 SOURCE = 2 LOCATION = 1

THK CORED = 70.00 THK N-CORED = 130.00 USGS = SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 190 FORMAT = B PROPERTY OR FARM = DRILLER = J SANDERSON

DRILL CONTR = DATE DRILLED = 0473

TWP OR PLACE = COMMENTS =

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 190	C	.00	135.30	135.30	SS			0	
4	FC 190	C	135.30	136.25	.95	CO			0	
5	FC 190	C	136.25	137.47	1.22	SH			0	
6	FC 190	C	137.47	139.50	2.03	CO		J	0	
7	FC 190	C	139.50	150.00	10.50	SH			0	
8	FC 190	C	150.00	157.40	7.40	CO		UI	0	
9	FC 190	C	157.40	172.00	14.60	SH			0	
10	FC 190	C	172.00	178.00	6.00	CO		LI	1	
11	FC 190	C	178.00	200.00	22.00	SS	BH		0	

SEQ NO = 1 DRILL HOLE NO = FC 193 FORMAT = A STATE = 43 COUNTY = 015 TWP = 23S RANGE = 6E SECTION = 04

SECTION CODE = SURFACE ELEV. = 6180.19 HOW DET. = 6

N-COORD = 187603 E-COORD = 2069513 SOURCE = 5 LOCATION = 2

THK CORED = .00 THK N-CORED = .00 USGS = MESA BUTTE SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 193 FORMAT = B PROPERTY OR FARM = DRILLER = B. KRUG

DRILL CONTR = DATE DRILLED = 0473

TWP OR PLACE = STRIP 2 COMMENTS = SEE FC193AB

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 193	C	.00	57.00	57.00	SS	TAN		0	PLUGGED
4	FC 193	C	57.00	58.00	1.00	SH	GRY		0	PLUGGED
5	FC 193	C	58.00	72.50	14.50	SS	TAN		0	PLUGGED
6	FC 193	C	72.50	74.70	2.20	SH	GRY		0	PLUGGED
7	FC 193	C	74.70	89.10	14.40	SS	GRY		0	PLUGGED
8	FC 193	C	89.10	89.60	.50	SH	CRB		0	PLUGGED
9	FC 193	C	89.60	91.00	1.40	SH	DRK GRY		0	PLUGGED
10	FC 193	C	91.00	91.57	.57	SH	DRK GRY		0	
11	FC 193	C	91.57	92.22	.65	SH	CRB		0	
12	FC 193	C	92.22	93.23	1.01	CL	GRY		0	
13	FC 193	C	93.23	93.42	.19	SH	CRB		0	
14	FC 193	C	93.42	94.53	1.11	CO		UI	0	
15	FC 193	C	94.53	94.54	.01	CO	PYS	UI	0	IRON
16	FC 193	C	94.54	96.56	2.02	CO		UI	0	
17	FC 193	C	96.56	96.58	.02	CO	PYS	UI	0	IRON
18	FC 193	C	96.58	98.55	1.97	CO		UI	0	
19	FC 193	C	98.55	98.61	.06	CO	PYS	UI	0	IRON
20	FC 193	C	98.61	99.35	.74	CO		UI	0	
21	FC 193	C	99.35	99.53	.18	CO	SHY	UI	0	
22	FC 193	C	99.53	100.11	.58	CO	SHY	UI	0	BAND
23	FC 193	C	100.11	100.17	.06	SH	COL		0	
24	FC 193	C	100.17	101.02	.85	SS	SHY GRY		0	PLUGGED
25	FC 193	C	101.02	135.40	34.38	SS	GRY		0	PLUGGED
26	FC 193	C	135.40	135.50	.10	SH	GRY		0	PLUGGED
27	FC 193	C	135.50	136.20	.70	SH	FRK		0	
28	FC 193	C	136.20	136.30	.10	SH	CRB		0	
29	FC 193	C	136.30	137.04	.74	CO	SHY	LI	0	
30	FC 193	C	137.04	148.81	11.77	CO		LI	0	
31	FC 193	C	148.81	149.48	.67	SH	GRY		0	
32	FC 193	C	149.48	150.02	.54	ST	GRY		0	
33	FC 193	C	150.02	151.04	1.02	SH	FRK GRY		0	
34	FC 193	C	151.04	151.56	.52	ST	GRY		0	
35	FC 193	C	151.56	162.70	11.14	SS	GRY		0	PLUGGED
36	FC 193	C	162.70	164.10	1.40	SS	GRY SHY		0	PLUGGED

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
37	FC 193	C	164.10	169.80	5.70	SH	GRY		0	PLUGGED
38	FC 193	C	169.80	180.00	10.20	SS	HRD GRY SHS BH		0	PLUGGED

			SEAM CODE	SAMP NO	SAMPLE DEPTH FROM	SAMPLE DEPTH TO	ANALYSIS CODE	PROXIMATE ANALYSIS %MOIS	%VOL	%CARB	%ASH	%SUL	BTU	EQUIL. MOIST	F P
1	FC 193	D	J	1	93.53	99.53	1	5.9	38.8	42.9	12.4	2.61	11376	.00	F
2	FC 193	D	J	1	93.53	99.53	2	.0	41.2	45.6	13.2	2.77	12091	.00	F
3	FC 193	D	I	1	136.30	148.81	1	5.4	36.8	45.9	11.8	.56	11791	.00	F
4	FC 193	D	I	2	136.30	148.81	2	.0	38.9	48.6	12.5	.59	12465	.00	F

SEQ NO = 1 DRILL HOLE NO = FC 195 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 33

SECTION CODE = SURFACE ELEV. = 6093.49 HOW DET. = 6

N-COORD = 189265 E-COORD = 2068620 SOURCE = 5 LOCATION = 2

THK CORED = .00 THK N-CORED = .00 USGS = SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 195 FORMAT = B PROPERTY OR FARM = DRILLER = B KRUG

DRILL CONTR = DATE DRILLED = 0473

TWP OR PLACE = COMMENTS =

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 195	C	.00	3.00	3.00	SH	SDY		0	PLUGGED
4	FC 195	C	3.00	51.40	48.40	SS	TAN GRY	TF	0	PLUGGED
5	FC 195	C	51.40	53.90	2.50	SH	GRY		0	PLUGGED
6	FC 195	C	53.90	76.10	22.20	SS	TAN GRY		0	PLUGGED
7	FC 195	C	76.10	76.60	.50	CO			0	PLGED,RIDER
8	FC 195	C	76.60	86.10	9.50	SH	DRK GRY		0	PLUGGED
9	FC 195	C	86.10	98.70	12.60	SS	GRY SHY		0	PLUGGED
10	FC 195	C	98.70	120.00	21.30	SS			0	PLUGGED
11	FC 195	C	120.00	120.90	.90	SS			0	
12	FC 195	C	120.90	121.06	.16	SH	CRB		0	
13	FC 195	C	121.06	121.80	.74	SS			0	
14	FC 195	C	121.80	121.85	.05	CL			0	
15	FC 195	C	121.85	123.56	1.71	SS			0	
16	FC 195	C	123.56	124.44	.88	SH			0	
17	FC 195	C	124.44	128.11	3.67	CO		UI	0	
18	FC 195	C	128.11	128.48	.37	SH			0	
19	FC 195	C	128.48	129.80	1.32	CL			0	
20	FC 195	C	129.80	140.00	10.20	SH	GRY		0	PLUG
21	FC 195	C	140.00	144.19	4.19	SS	SHY		0	
22	FC 195	C	144.19	144.37	.18	SH	CRB		0	
23	FC 195	C	144.37	144.49	.12	SH	CRB SDY		0	
24	FC 195	C	144.49	144.70	.21	SH	CRB		0	
25	FC 195	C	144.70	144.87	.17	SH	CRB COL		0	
26	FC 195	C	144.87	148.32	3.45	CO		LI	0	
27	FC 195	C	148.32	148.33	.01	SH	CRB	LI	0	
28	FC 195	C	148.33	148.62	.29	CO		LI	0	
29	FC 195	C	148.62	148.92	.30	SH	CRB COL	LI	0	
30	FC 195	C	148.92	157.97	9.05	CO		LI	0	
31	FC 195	C	157.97	157.99	.02	SH	CRB COL		0	
32	FC 195	C	157.99	160.11	2.12	SS			0	
33	FC 195	C	160.11	180.00	19.89	SS	SHY BH		0	PLUGGED

			SEAM CODE	SAMP NO	SAMPLE DEPTH FROM	TO	ANALYSIS CODE	PROXIMATE ANALYSIS %MOIS	%VOL	%CARB	%ASH	%SUL	BTU	EQUIL. MOIST	F P
1	FC 195	D	J	1	124.44	128.11	1	3.9	40.9	45.8	9.3	2.59	12422	.00	F
2	FC 195	D	J	1	124.44	128.11	2	.0	42.6	47.7	9.7	2.70	12930	.00	F
3	FC 195	D	I	2	144.87	157.50	1	3.4	39.2	47.9	9.4	.43	12380	.00	F
4	FC 195	D	I	2	144.87	157.50	2	.0	40.7	49.6	9.8	.45	12822	.00	F

SEQ NO = 1 DRILL HOLE NO = FC 248 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 27

SECTION CODE = SURFACE ELEV. = 6063.33 HOW DET. = 6

N-COORD = 198029 E-COORD = 2074455 SOURCE = 2 LOCATION = 6

THK CORED = 49.50 THK N-CORED = 138.50 USGS = SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 248 FORMAT = B PROPERTY OR FARM = DRILLER = MCCLOY

DRILL CONTR = DATE DRILLED = 0374

TWP OR PLACE = STRIP 1 COMMENTS =

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 248	C	.00	70.00	70.00	SH			0	
4	FC 248	C	70.00	92.30	22.30	SH	HRD		0	
5	FC 248	C	92.30	92.30	.00	SS		TF	0	
6	FC 248	C	92.30	123.30	31.00	SS			0	
7	FC 248	C	123.30	127.10	3.80	SH			0	
8	FC 248	C	127.10	138.50	11.40	SS			0	
9	FC 248	C	138.50	147.00	8.50	SS	MED FGR		0	CORED
10	FC 248	C	147.00	151.95	4.95	SS	GRY		0	CORED
11	FC 248	C	151.95	156.10	4.15	CO		J	0	CORED
12	FC 248	C	156.10	156.35	.25	SH	SDY GRY	J	0	CORED
13	FC 248	C	156.35	156.45	.10	SH	CRB	J	0	CORED
14	FC 248	C	156.45	158.30	1.85	CO		J	0	CORED
15	FC 248	C	158.30	159.05	.75	SH	CRB		0	CORED
16	FC 248	C	159.05	159.60	.55	CO		UI	0	CORED
17	FC 248	C	159.60	160.10	.50	ND		UI	0	CORED
18	FC 248	C	160.10	163.30	3.20	CO		UI	0	CORED
19	FC 248	C	163.30	163.40	.10	SH	CRB	UI	0	CORED
20	FC 248	C	163.40	170.10	6.70	CO		LI	0	CORED
21	FC 248	C	170.10	176.50	6.40	CO		LI	0	CORED
22	FC 248	C	176.50	177.80	1.30	SH	TAN SDY	LI	0	CORED
23	FC 248	C	177.80	178.70	.90	SS	TAN FGR		0	CORED
24	FC 248	C	178.70	180.10	1.40	SH			0	CORED
25	FC 248	C	180.10	182.70	2.60	SS	GRY		0	CORED
26	FC 248	C	182.70	187.50	4.80	SH	DRK GRY		0	CORED
27	FC 248	C	187.50	188.00	.50	SS	SHY GRY	BH	0	CORED

			SEAM CODE	SAMP NO	SAMPLE DEPTH FROM	SAMPLE DEPTH TO	ANALYSIS CODE	PROXIMATE ANALYSIS %MOIS	%VOL	%CARB	%ASH	%SUL	BTU	EQUIL. MOIST	F P
1	FC 248	D	I	1	176.29	176.50	85	3.6	40.9	49.5	6.0	.88	13170	.00	F
2	FC 248	D	I	2	176.29	176.50	82	.0	42.4	51.4	6.2	.91	13660	.00	F
3	FC 248	D	I	1	176.29	176.50	83	.0	45.2	54.8	.0	.00	14560	.00	F
4	FC 248	D	I	2	176.29	176.50	N5	3.5	40.1	49.3	7.1	1.43	12980	.00	F

5	FC 248	D	I	2	176.29	176.50	N2	.0	41.5	51.1	7.4	1.48	13450	.00	F
6	FC 248	D	I	2	176.29	176.50	N3	.0	44.8	55.2	.0	.00	14520	.00	F
7	FC 248	D	I	3	176.29	176.50	85	3.2	41.6	45.7	9.5	2.38	12600	.00	F
8	FC 248	D	I	3	176.29	176.50	82	.0	43.0	47.2	9.8	2.46	13020	.00	F
9	FC 248	D	I	3	176.29	176.50	83	.0	47.7	52.3	.0	.00	14430	.00	F
10	FC 248	D	I	4	176.29	176.50	N5	3.2	37.5	39.6	19.7	2.66	10860	.00	F
11	FC 248	D	I	4	176.29	176.50	N2	.0	38.7	40.9	20.4	2.75	11220	.00	F
12	FC 248	D	I	4	176.29	176.50	N3	.0	48.6	51.4	.0	.00	14100	.00	F

			SEAM CODE	SAMP NO	ULTIMATE ANALYSIS C	H2	N	CL	O2	FSI	GRINDABILITY	ASH SOFTENING TEMP. A	B	C	D
1	FC 248	E	I	1	.0	.0	.0	.0	.0	1.5	.0	0	0	0	0
2	FC 248	E	I	2	.0	.0	.0	.0	.0	2.0	.0	0	0	0	0
3	FC 248	E	I	3	.0	.0	.0	.0	.0	2.0	.0	0	0	0	0
4	FC 248	E	I	4	.0	.0	.0	.0	.0	2.0	.0	0	0	0	0

			SEAM CODE	SAMP NO	ASH ANALYSIS SIO2	AL2O3	FE2O3	TIO2	P2O5	CAO	MGO	NA2O	K2O	SO3
1	FC 248	F	I	1	37.84	16.88	4.03	.91	.38	15.61	3.81	4.78	.26	15.15
2	FC 248	F	I	2	31.00	12.66	11.32	.84	.34	15.91	3.51	2.11	.20	17.21
3	FC 248	F	I	3	46.53	23.96	6.94	1.08	.00	6.21	1.92	1.46	.34	7.71
4	FC 248	F	I	4	51.06	25.86	7.00	1.11	.03	4.80	1.61	1.03	.69	5.11

SEQ NO = 1 DRILL HOLE NO = FC 269A FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 28

SECTION CODE = SURFACE ELEV. = 6038.21 HOW DET. = 6

N-COORD = 194913 E-COORD = 2071741 SOURCE = 2 LOCATION = 6

THK CORED = .00 THK N-CORED = .00 USGS = SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 269A FORMAT = B PROPERTY OR FARM = DRILLER = GRIMM

DRILL CONTR = DATE DRILLED = 0474

TWP OR PLACE = COMMENTS =

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 269A	C	.00	1.90	1.90	SN	BRN		0	
4	FC 269A	C	1.90	54.30	52.40	SH	GRY		0	
5	FC 269A	C	54.30	77.90	23.60	SS	GRY	TF	0	
6	FC 269A	C	77.90	81.80	3.90	SH	GRY		0	
7	FC 269A	C	81.80	84.60	2.80	SS	HRD GRY		0	
8	FC 269A	C	84.60	86.80	2.20	SH	GRY		0	
9	FC 269A	C	86.80	124.00	37.20	SS	GRY		0	
10	FC 269A	C	124.00	128.40	4.40	CO		J	0	
11	FC 269A	C	128.40	130.30	1.90	SH	GRY		0	
13	FC 269A	C	130.30	135.90	5.60	CO		UI	0	
14	FC 269A	C	135.90	136.90	1.00	SH			0	
15	FC 269A	C	136.90	151.20	14.30	CO		LI	0	
16	FC 269A	C	151.20	152.60	1.40	SH	GRY		0	
17	FC 269A	C	152.60	156.80	4.20	SS	GRY		0	
18	FC 269A	C	156.80	165.00	8.20	SH	GRY BH		0	

SEQ NO = 1 DRILL HOLE NO = FC 274 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 19

SECTION CODE = SURFACE ELEV. = 6035.06 HOW DET. = 6

N-COORD = 199430 E-COORD = 2060730 SOURCE = 2 LOCATION = 1

THK CORED = 795.00 THK N-CORED = 165.00 USGS = EMERY WEST SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 274 FORMAT = B PROPERTY OR FARM = DRILLER = KNIGHT

DRILL CONTR = DATE DRILLED = 0474

TWP OR PLACE = COMMENTS =

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 274	C	.00	28.00	28.00	CL	SDY		0	
4	FC 274	C	28.00	32.00	4.00	GR			0	
5	FC 274	C	32.00	162.00	130.00	SH	GRY		0	
6	FC 274	C	162.00	320.00	158.00	SH	GRY		0	
7	FC 274	C	320.00	440.00	120.00	SH			0	
8	FC 274	C	440.00	485.00	45.00	SH	SSS		0	
9	FC 274	C	485.00	660.00	175.00	SH	SDY GRY HRD		0	
10	FC 274	C	660.00	705.00	45.00	SS	CAS SDY HRD	TF	0	CORED
11	FC 274	C	705.00	715.00	10.00	SS	CAS HRD		0	CORED
12	FC 274	C	715.00	715.50	.50	ND			0	CORE LOSS
13	FC 274	C	715.50	720.40	4.90	CO		K	1	CORED
14	FC 274	C	720.40	720.60	.20	SH	CAS COL CRB	K	1	CORED
15	FC 274	C	720.60	720.90	.30	SS	CAS HRD	K	1	CORED
16	FC 274	C	720.90	721.00	.10	SH	CAS CRB COL	K	1	CORED
17	FC 274	C	721.00	722.20	1.20	CO		K	1	CORED
18	FC 274	C	722.20	722.60	.40	SH	CAS CRB		0	CORED
19	FC 274	C	722.60	723.00	.40	ST	CAS HRD		0	CORED
20	FC 274	C	723.00	730.00	7.00	SH			0	CORED
21	FC 274	C	730.00	730.60	.60	SH			0	
22	FC 274	C	730.60	733.60	3.00	CO		K	3	
23	FC 274	C	733.60	751.00	17.40	SH	SSS		0	
24	FC 274	C	751.00	764.30	13.30	SH	DRK GRY HRD SDY		0	CORED
25	FC 274	C	764.30	771.10	6.80	SS	LIT GRY HRD		0	CORED
26	FC 274	C	771.10	771.25	.15	SY	CRB HRD		0	CORED
27	FC 274	C	771.25	774.35	3.10	SS	GRY HRD		0	CORED
28	FC 274	C	774.35	775.80	1.45	SH	CRB DRK BRN		0	CORED
29	FC 274	C	775.80	775.80	.00	CO	EXH	J	0	
30	FC 274	C	775.80	777.00	1.20	SH	CRB		0	
31	FC 274	C	777.00	779.40	2.40	CO		UI	0	
32	FC 274	C	779.40	780.00	.60	SH	CAR		0	
33	FC 274	C	780.00	784.65	4.65	CO		LI	1	
34	FC 274	C	784.65	785.00	.35	SH	CRB BLK		0	CORED
35	FC 274	C	785.00	786.20	1.20	SH	DRK GRY MED HRD		0	CORED
36	FC 274	C	786.20	788.00	1.80	SS	SHY HRD		0	CORED

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
37	FC 274	C	788.00	788.20	.20	SS	SHY COL		0	CORED
38	FC 274	C	788.20	788.60	.40	CO		LI	3	CORED
39	FC 274	C	788.60	789.20	.60	SH	CRB		0	CORED
40	FC 274	C	789.20	790.50	1.30	SH	CAS SFT		0	CORED
41	FC 274	C	790.50	791.10	.60	SS	CAS HRD		0	CORED
42	FC 274	C	791.10	795.00	3.90	SS	LIT GRY HRD		0	CORED
43	FC 274	C	795.00	797.00	2.00	SS	SHY HRD		0	CORED
44	FC 274	C	797.00	797.10	.10	SH	SLY SDY HRD		0	CORED
45	FC 274	C	797.10	797.50	.40	SH			0	CORED
46	FC 274	C	797.50	798.10	.60	SS	SHY		0	CORED
47	FC 274	C	798.10	798.80	.70	SH	HRD GRY		0	CORED
48	FC 274	C	798.80	800.15	1.35	SH	SLY HRD		0	CORED
49	FC 274	C	800.15	800.70	.55	SH	COL MED HRD		0	CORED
50	FC 274	C	800.70	800.90	.20	SH	SDY		0	CORED
51	FC 274	C	800.90	801.00	.10				0	CORED LOSS
52	FC 274	C	801.00	820.40	19.40	SS	HRD		0	
53	FC 274	C	820.40	822.15	1.75	SS	CRB COL		0	CORED
54	FC 274	C	822.15	824.30	2.15	CO		LI	5	CORED
55	FC 274	C	824.30	826.40	2.10	SH	CRB COL		0	CORED
56	FC 274	C	826.40	826.95	.55	SH	CAS CRB		0	CORED
57	FC 274	C	826.95	828.00	1.05	SH	DRK GRY HRD		0	CORED
58	FC 274	C	828.00	828.85	.85	BO			0	CORED
59	FC 274	C	828.85	830.10	1.25	SH	GRY MED HRD		0	CORED
60	FC 274	C	830.10	830.40	.30	SH			0	CORED LOSS
61	FC 274	C	830.40	850.00	19.60	SH	GRY SDY		0	
62	FC 274	C	850.00	850.90	.90	SS	LIT GRY HRD		0	CORED
63	FC 274	C	850.90	851.00	.10	SH	SDY		0	CORED
64	FC 274	C	851.00	852.50	1.50	SS	LIT GRY HRD		0	CORED
65	FC 274	C	852.50	858.50	6.00	SS	CAS HRD		0	CORED
66	FC 274	C	858.50	858.65	.15	ST	DRK GRY HRD		0	CORED
67	FC 274	C	858.65	860.00	1.35	SS	CAS HRD		0	CORED
68	FC 274	C	860.00	870.00	10.00	SS	LIT GRY HRD		0	CORED
69	FC 274	C	870.00	886.60	16.60	SS			0	
70	FC 274	C	886.60	892.80	6.20	CO		G	0	
71	FC 274	C	892.80	901.00	8.20	SS	HRD		0	
72	FC 274	C	901.00	902.00	1.00	SH	BRN		0	
73	FC 274	C	902.00	904.00	2.00	CO			0	
74	FC 274	C	904.00	932.00	28.00	SH	GRY		0	
75	FC 274	C	932.00	937.30	5.30	SS			0	
76	FC 274	C	937.30	939.70	2.40	CO		D	0	
77	FC 274	C	939.70	941.30	1.60	ND			0	PARTING
78	FC 274	C	941.30	945.30	4.00	CO		C	0	
79	FC 274	C	945.30	946.30	1.00	CO		C	0	PARTING
80	FC 274	C	946.30	948.70	2.40	CO		C	0	
81	FC 274	C	948.70	960.00	11.30	SH	BH		0	

			SEAM CODE	SAMP NO	SAMPLE DEPTH FROM	TO	ANALYSIS CODE	PROXIMATE ANALYSIS %MOIS	%VOL	%CARB	%ASH	%SUL.	BTU	EQUIL. MOIST	F P
1	FC 274	D		1	775.00	775.80	1	2.3	.0	.0	89.7	.24	338	.00	F
2	FC 274	D		1	775.00	775.80	2	.0	.0	.0	91.7	.25	346	.00	F
3	FC 274	D		2	784.75	785.00	1	2.4	.0	.0	82.4	.27	1073	.00	F
4	FC 274	D		2	784.75	785.00	2	.0	.0	.0	84.4	.28	1099	.00	F
5	FC 274	D		3	713.00	714.75	1	1.2	.0	.0	57.1	9.91	5245	.00	F
6	FC 274	D		3	713.00	714.75	2	.0	.0	.0	58.0	10.07	5328	.00	F
7	FC 274	D		4	722.60	723.00	1	1.5	.0	.0	91.0	3.18	528	.00	F
8	FC 274	D		4	722.60	723.00	2	.0	.0	.0	92.3	3.23	536	.00	F

			SEAM CODE	SAMP NO	SP GR	TYPE CODE	FLOAT SINK DATA % WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE
1	FC 274	G	J	1	0001601	DF	9260	.00	4.67	2.11	0	0001
2	FC 274	G	J	2	0001601	DF	1020	.00	9.95	1.95	0	0001
3	FC 274	G	J	3	0001601	DF	1070	.00	11.63	1.50	0	0001
4	FC 274	G	J	4	0001601	DF	7158	.00	7.97	1.85	0	0001
5	FC 274	G	J	5	0001601	DS	0740	.00	56.37	5.88	0	0001
6	FC 274	G	J	6	0001601	DS	0698	.00	43.19	7.42	0	0001
7	FC 274	G	J	7	0001601	DS	3893	.00	81.19	.45	0	0001
8	FC 274	G	J	8	0001601	DS	2842	.00	75.65	3.98	0	0001
9	FC 274	G	I	9	0001601	DF	7900	.00	9.60	.76	0	0001
10	FC 274	G	I	0	0001601	DF	8923	.00	8.65	.59	0	0001
11	FC 274	G	I	1	0001601	DF	7394	.00	8.64	.48	0	0001
12	FC 274	G	I	2	0001601	DF	9810	.00	6.21	.56	0	0001
13	FC 274	G	I	3	0001601	DF	9402	.00	8.83	.55	0	0001
14	FC 274	G	I	4	0001601	DS	2100	.00	56.71	1.43	0	0001
15	FC 274	G	I	5	0001601	DS	1077	.00	44.72	.48	0	0001
16	FC 274	G	I	6	0001601	DS	2606	.00	45.88	.29	0	0001
17	FC 274	G	I	7	0001601	DS	0190	.00	48.41	.60	0	0001
18	FC 274	G	I	8	0001601	DS	0598	.00	61.76	.99	0	0001

SEQ NO = 1 DRILL HOLE NO = FC 275A FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 29

SECTION CODE = SURFACE ELEV. = 6031.44 HOW DET. = 6

N-COORD = 198031 E-COORD = 2063524 SOURCE = 2 LOCATION = 1

THK CORED = 72.50 THK N-CORED = 777.50 USGS = SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 275A FORMAT = B PROPERTY OR FARM = DRILLER =

DRILL CONTR = DATE DRILLED = 0474

TWP OR PLACE = COMMENTS =

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 275A	C	.00	509.00	509.00	SH	DRK GRY		0	
4	FC 275A	C	509.00	548.00	39.00	SH	SSS		0	
5	FC 275A	C	548.00	560.00	12.00	SS	GRY	TF	0	
6	FC 275A	C	560.00	560.60	.60	SS	HRD CAS		0	CORED
7	FC 275A	C	560.60	561.20	.60	SS	SLY		0	CORED
8	FC 275A	C	561.20	568.85	7.65	SS	CAS MED GRY		0	CORED
9	FC 275A	C	568.85	569.05	.20	BO			0	CORED
10	FC 275A	C	569.05	571.10	2.05	ST	DRK HRD BRN		0	CORED
11	FC 275A	C	571.10	573.90	2.80	CO		K	0	CORED
12	FC 275A	C	573.90	574.00	.10	PY		K	0	CORED
13	FC 275A	C	574.00	577.15	3.15	CO		K	0	CORED
14	FC 275A	C	577.15	577.45	.30	ST	BRN HRD	K	0	CORED
15	FC 275A	C	577.45	578.60	1.15	CO		K	0	CORED
16	FC 275A	C	578.60	579.10	.50	ST	CRB COL		0	CORED
17	FC 275A	C	579.10	580.80	1.70	SS	LIT GRY		0	CORED
18	FC 275A	C	580.80	586.00	5.20	SH	DRK GRY SDY		0	CORED
19	FC 275A	C	586.00	586.50	.50	CO			0	CORED
20	FC 275A	C	586.50	586.60	.10	SH	DRK GRY SDY		0	CORED
21	FC 275A	C	586.60	598.00	11.40	SH	DRK GRY		0	
22	FC 275A	C	598.00	620.50	22.50	SS	GRY		0	
23	FC 275A	C	620.50	620.70	.20	SH	DRK GRY		0	
24	FC 275A	C	620.70	622.30	1.60	CO		J	0	
25	FC 275A	C	622.30	623.00	.70	PT			0	PARTING
26	FC 275A	C	623.00	628.90	5.90	CO		UI	0	CORED
27	FC 275A	C	628.90	629.00	.10	ST			0	CORED
28	FC 275A	C	629.00	630.00	1.00	CO		LI	1	CORED
29	FC 275A	C	630.00	630.30	.30	SH	CRB COL HRD	LI	1	CORED
30	FC 275A	C	630.30	637.00	6.70	CO		LI	1	CORED
31	FC 275A	C	637.00	637.15	.15	SH	DRK BRN COL		0	CORED
32	FC 275A	C	637.15	638.05	.90	SH	CAS DRK GRY HRD		0	CORED
33	FC 275A	C	638.05	638.15	.10	SS	CAS		0	CORED
34	FC 275A	C	638.15	638.75	.60	SH	DRK BRN HRD		0	CORED
35	FC 275A	C	638.75	640.75	2.00	SS	SHY		0	CORED
36	FC 275A	C	640.75	643.00	2.25	SS	CRB HRD		0	CORED

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
37	FC 275A	C	643.00	643.45	.45	SS	CAS CRB HRD		0	CORED
38	FC 275A	C	643.45	643.55	.10	ST	COL		0	CORED
39	FC 275A	C	643.55	649.65	6.10	SS	CAS CRB HRD		0	CORED
40	FC 275A	C	649.65	650.40	.75	SS	SLY		0	CORED
41	FC 275A	C	650.40	651.50	1.10	SS	CAS CRB HRD		0	CORED
42	FC 275A	C	651.50	651.75	.25	ST	CAS DRK BRN		0	CORED
43	FC 275A	C	651.75	653.20	1.45	SS	MED GRY		0	CORED
44	FC 275A	C	653.20	653.75	.55	CO			0	CORED
45	FC 275A	C	653.75	654.40	.65	BO			0	CORED
46	FC 275A	C	654.40	654.65	.25	CO			0	CORED
47	FC 275A	C	654.65	655.80	1.15	SH	COL CRB		0	CORED
48	FC 275A	C	655.80	656.55	.75	BO			0	CORED
49	FC 275A	C	656.55	658.70	2.15	SH	CRB BNY		0	CORED
50	FC 275A	C	658.70	661.00	2.30	CO		LI	5	CORED
51	FC 275A	C	661.00	661.20	.20	SH	CRB COL		0	CORED
52	FC 275A	C	661.20	665.00	3.80	SH	LIT GRY SFT		0	CORED
53	FC 275A	C	665.00	666.00	1.00	SH	DRK GRY CRB HRD		0	CORED
54	FC 275A	C	666.00	667.50	1.50	ST	SDY MED GRY		0	CORED
55	FC 275A	C	667.50	668.90	1.40	SS	LIT GRY HRD		0	CORED
56	FC 275A	C	668.90	718.80	49.90	ST	HRD		0	
57	FC 275A	C	718.80	723.10	4.30	CO		G	0	
58	FC 275A	C	723.10	725.40	2.30	SS	GRY		0	
59	FC 275A	C	725.40	727.00	1.60	CO			0	
60	FC 275A	C	727.00	747.70	20.70	ST	HRD		0	
61	FC 275A	C	747.70	750.50	2.80	CO		D	0	
62	FC 275A	C	705.00	752.60	47.60	PT			0	
63	FC 275A	C	752.60	757.40	4.80	CO		C	0	
64	FC 275A	C	757.40	842.60	85.20	ST	STS DY		0	
65	FC 275A	C	842.60	844.80	2.20	SH			0	
66	FC 275A	C	844.80	850.00	5.20	ST	HRD BH		0	

SEQ NO = 1 DRILL HOLE NO = FC 276 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 30

SECTION CODE = SURFACE ELEV. = 6002.48 HOW DET. = 6

N-COORD = 197138 E-COORD = 2062389 SOURCE = 2 LOCATION = 1

THK CORED = 108.00 THK N-CORED = 672.00 USGS = SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 276 FORMAT = B PROPERTY OR FARM = DRILLER = J GORDON

DRILL CONTR = DATE DRILLED = 0474

TWP OR PLACE = COMMENTS =

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 276	C	.00	12.80	12.80	SN	BRN		0	
4	FC 276	C	12.80	22.60	9.80	CL	BRN SDY		0	
5	FC 276	C	22.60	42.10	19.50	CL	GRY SDY		0	
6	FC 276	C	42.10	45.70	3.60	GR			0	
7	FC 276	C	45.70	54.60	8.90	SH	GRY SDY		0	
8	FC 276	C	54.60	536.20	481.60	SH	GRY		0	
9	FC 276	C	536.20	540.00	3.80	SS	GRY HRD	TF	0	
10	FC 276	C	540.00	550.00	10.00	SS	DRK GRY CAS		0	CORED
11	FC 276	C	550.00	553.80	3.80	SS	GRY		0	CORED
12	FC 276	C	553.80	554.00	.20	SH	CRB		0	CORED
13	FC 276	C	554.00	556.75	2.75	SS	CRB		0	CORED
14	FC 276	C	556.75	556.95	.20	SH	CRB COL		0	CORED
15	FC 276	C	556.95	557.50	.55	CO			0	CORED
16	FC 276	C	557.50	558.50	1.00	CO			0	LOSS, CORED
17	FC 276	C	558.50	560.90	2.40	ST	CRB COL		0	CORED
18	FC 276	C	560.90	561.50	.60	ST	BNY		0	CORED
19	FC 276	C	561.50	567.05	5.55	CO		K	0	CORED
20	FC 276	C	567.05	567.25	.20	ST	CAS	K	0	CORED
21	FC 276	C	567.25	567.80	.55	CO		K	0	CORED
22	FC 276	C	567.80	568.00	.20	SH	CRB TAN		0	CORED
23	FC 276	C	568.00	572.00	4.00	SS	BLK CRB		0	CORED
24	FC 276	C	572.00	572.70	.70	ST	BLK		0	CORED
25	FC 276	C	572.70	575.80	3.10	ST	BLK SHY		0	CORED
26	FC 276	C	575.80	576.30	.50	ST	COL		0	CORED
27	FC 276	C	576.30	576.60	.30	ST	BLK SHY		0	CORED
28	FC 276	C	576.60	578.00	1.40	ST	SHY CLY		0	CORED
29	FC 276	C	578.00	580.85	2.85	SH	CRB BLK		0	CORED
30	FC 276	C	580.85	581.45	.60	BO			0	CORED
31	FC 276	C	581.45	581.70	.25	SH	CRB		0	CORED
32	FC 276	C	581.70	582.00	.30	CO			0	CORED
33	FC 276	C	582.00	586.00	4.00	SH	CRB		0	CORED
34	FC 276	C	586.00	587.50	1.50	ST	CRB		0	CORED
35	FC 276	C	587.50	588.00	.50	SS	GRY CRB		0	CORED
36	FC 276	C	588.00	607.00	19.00	SS	HRD		0	CORED

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
37	FC 276	C	607.00	607.30	.30	SS	SHY HRD		0	CORED
38	FC 276	C	607.30	608.35	1.05	SS	SHY HRD		0	CORED
39	FC 276	C	608.35	608.65	.30	SH	SDY MED HRD		0	CORED
40	FC 276	C	608.65	613.00	4.35	SS	SHY HRD		0	CORED
41	FC 276	C	613.00	613.00	.00	CO	EXH	J	0	
42	FC 276	C	613.00	618.05	5.05	SS	LIT GRY MED HRD		0	CORED
43	FC 276	C	618.05	623.75	5.70	CO		UI	0	CORED
44	FC 276	C	623.75	623.95	.20	BO			0	CORED
45	FC 276	C	623.95	630.90	6.95	CO		LI	1	CORED
46	FC 276	C	630.90	632.10	1.20	SH	DRK GRY MED HRD		0	CORED
47	FC 276	C	632.10	632.50	.40	ST	DRK GRY MED HRD		0	CORED
48	FC 276	C	632.50	633.20	.70	SS	CAS GRY HRD		0	CORED
49	FC 276	C	633.20	633.90	.70	SS	COL		0	CORED
50	FC 276	C	633.90	638.10	4.20	CO		LI	3	CORED
51	FC 276	C	638.10	638.80	.70	SH	CRB COL		0	CORED
52	FC 276	C	638.80	639.30	.50	CO			0	CORED
53	FC 276	C	639.30	639.95	.65	SH	SFT GRY		0	CORED
54	FC 276	C	639.95	640.65	.70	SH	CRB SFT		0	CORED
55	FC 276	C	640.65	645.05	4.40	CO		LI	5	CORED
56	FC 276	C	645.05	645.25	.20	SH	CRB		0	CORED
57	FC 276	C	645.25	646.15	.90	SH	DRK GRY SFT		0	CORED
58	FC 276	C	646.15	646.45	.30	SH	DRK GRY HRD		0	CORED
59	FC 276	C	646.45	655.00	8.55	SH	CAS DRK GRY		0	CORED
60	FC 276	C	655.00	667.00	12.00	SS	CAS HRD		0	CORED
61	FC 276	C	667.00	718.50	51.50	SS	HRD GRY		0	
62	FC 276	C	718.50	724.60	6.10	CO		G	0	
63	FC 276	C	724.60	756.20	31.60	SS	GRY		0	
64	FC 276	C	756.20	759.40	3.20	CO		D	0	
65	FC 276	C	759.40	761.10	1.70	PT			0	PARTING
66	FC 276	C	761.10	767.40	6.30	CO		C	0	
67	FC 276	C	767.40	780.00	12.60	CL	GRY SDY BH		0	

FLOAT SINK DATA

			SEAM CODE	SAMP NO	SP GR	TYPE CODE	% WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE
1	FC 276	G	J	1	000160	DF	9463	.00	6.37	1.92	0	0001
2	FC 276	G	J	2	000160	DF	9601	.00	8.99	2.58	0	0001
3	FC 276	G	J	3	000160	DF	6091	.00	9.41	2.03	0	0001
4	FC 276	G	J	4	000160	DS	0537	.00	58.84	8.56	0	0001
5	FC 276	G	J	5	000160	DS	0399	.00	64.30	5.70	0	0001
6	FC 276	G	J	6	000160	DS	3909	.00	76.70	.89	0	0001
7	FC 276	G	I	7	000160	DF	9775	.00	10.98	.89	0	0001
8	FC 276	G	I	8	000160	DF	9735	.00	5.81	.48	0	0001
9	FC 276	G	I	9	000160	DF	8074	.00	7.87	.42	0	0001
10	FC 276	G	I	0	000160	DF	9358	.00	7.95	.14	0	0001
11	FC 276	G	I	0	000160	DF	9589	.00	4.69	.45	0	0001
12	FC 276	G	I	0	000160	DF	9925	.00	11.54	.48	0	0001
13	FC 276	G	I	0	000160	DF	9833	.00	7.76	.84	0	0001
14	FC 276	G	I	0	000160	DF	9909	.00	8.31	.78	0	0001

							FLOAT SINK DATA					
			SEAM CODE	SAMP NO	SP GR	TYPE CODE	% WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE
15	FC 276	G	I	0	000160	DF	2363	.00	23.06	1.07	0	0001
16	FC 276	G	I	0	000160	DF	9513	.00	9.81	1.56	0	0001
17	FC 276	G	I	0	000160	DF	3421	.00	23.85	3.94	0	0001
18	FC 276	G	I	0	000160	DF	5858	.00	11.16	1.74	0	0001
19	FC 276	G	I	0	000160	DS	0225	.00	58.98	.66	0	0001
20	FC 276	G	I	0	000160	DS	0263	.00	44.14	.60	0	0001
21	FC 276	G	I	0	000160	DS	1926	.00	67.66	.14	0	0001
22	FC 276	G	I	0	000160	DS	0642	.00	44.05	.04	0	0001
23	FC 276	G	I	0	000160	DS	0411	.00	59.62	.81	0	0001
24	FC 276	G	I	0	000160	DS	0075	.00	50.92	.71	0	0001
25	FC 276	G	I	0	000160	DS	0167	.00	23.21	3.49	0	0001
26	FC 276	G	I	0	000160	DS	0091	.00	20.38	.56	0	0001
27	FC 276	G	I	0	000160	DS	7637	.00	81.28	.24	0	0001
28	FC 276	G	I	0	000160	DS	0487	.00	66.65	3.20	0	0001
29	FC 276	G	I	0	000160	DS	6579	.00	53.88	3.33	0	0001
30	FC 276	G	I	0	000160	DS	4144	.00	67.71	.80	0	0001

SEQ NO = 1 DRILL HOLE NO = FC 278 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 28

SECTION CODE = SURFACE ELEV. = 6008.49 HOW DET. = 6

N-COORD = 195491 E-COORD = 2068348 SOURCE = 2 LOCATION = 1

THK CORED = 100.90 THK N-CORED = 659.10 USGS = SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 278 FORMAT = B PROPERTY OR FARM = DRILLER = GORDON

DRILL CONTR = DATE DRILLED = 0474

TWP OR PLACE = COMMENTS =

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 278	C	.00	3.40	3.40	SN	BRN		0	
4	FC 278	C	3.40	12.90	9.50	SN	BRN		0	
5	FC 278	C	12.90	192.70	179.80	SH			0	
6	FC 278	C	192.70	260.80	68.10	SS	HRD	TF	0	
7	FC 278	C	260.80	280.00	19.20	SH			0	
8	FC 278	C	280.00	281.10	1.10	SH			0	
10	FC 278	C	281.10	281.25	.15	ST	CRN GRY		0	CORED
11	FC 278	C	281.25	282.95	1.70	SS			0	CORED
12	FC 278	C	282.95	283.35	.40	ST			0	CORED
13	FC 278	C	283.35	283.60	.25	SS			0	CORED
14	FC 278	C	283.60	283.70	.10	SH	DRK GRY		0	CORED
15	FC 278	C	283.70	286.35	2.65	SS			0	CORED
16	FC 278	C	286.35	286.65	.30	SH	SDY		0	CORED
17	FC 278	C	286.65	290.00	3.35	SS	LIT GRY		0	CORED
18	FC 278	C	290.00	291.80	1.80	SH	DRK GRY		0	CORED
19	FC 278	C	291.80	293.15	1.35	SS	COL CRB		0	CORED
20	FC 278	C	293.15	294.50	1.35	CO		J	0	CORED
21	FC 278	C	294.50	295.35	.85	SH	CRB	J	0	CORED
22	FC 278	C	295.35	297.50	2.15	CO		J	0	CORED
23	FC 278	C	297.50	297.70	.20	CO			0	CORED
24	FC 278	C	297.70	297.85	.15	BO			0	CORED
25	FC 278	C	297.85	299.60	1.75	ST			0	CORED
26	FC 278	C	299.60	299.90	.30	CL			0	CORED
27	FC 278	C	299.90	306.00	6.10	CO		UI	0	CORED
28	FC 278	C	306.00	310.05	4.05	CO		LI	0	CORED
29	FC 278	C	310.05	310.15	.10	PY		LI	0	
30	FC 278	C	310.15	310.40	.25	CO		LI	0	CORED
31	FC 278	C	310.40	310.50	.10	PY		LI	0	CORED
32	FC 278	C	310.50	320.85	10.35	CO		LI	0	CORED
33	FC 278	C	320.85	321.70	.85	CL			0	CORED
34	FC 278	C	321.70	325.30	3.60	SH	SDY CLY		0	CORED
35	FC 278	C	325.30	327.00	1.70	SH			0	CORED
36	FC 278	C	327.00	345.00	18.00	SS	HRD GRY		0	
37	FC 278	C	345.00	345.50	.50	ST	SDY		0	CORED

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
38	FC 278	C	345.50	346.10	.60	SH	GRY SDY		0	CORED
39	FC 278	C	346.10	348.90	2.80	SS	GRY		0	CORED
40	FC 278	C	348.90	350.05	1.15	SH	DRK GRY		0	CORED
41	FC 278	C	350.05	350.30	.25	SH	LIT GRY		0	CORED
42	FC 278	C	350.30	353.00	2.70	SH			0	CORED
43	FC 278	C	353.00	353.50	.50	SH	GRY		0	CORED
44	FC 278	C	353.50	353.70	.20	BO	COL	G	0	CORED
45	FC 278	C	353.70	353.90	.20	CO		G	0	CORED
46	FC 278	C	353.90	355.00	1.10	CO		G	0	CORED
47	FC 278	C	355.00	360.20	5.20	CO		G	0	CORED
48	FC 278	C	360.20	360.35	.15	SH	CRB		0	CORED
49	FC 278	C	360.35	360.45	.10	CL	BRN SFT		0	CORED
50	FC 278	C	360.45	361.65	1.20	SH	GRY SDY		0	CORED
51	FC 278	C	361.65	364.25	2.60	SS	WHT		0	CORED
52	FC 278	C	364.25	365.00	.75	SS			0	CORED
53	FC 278	C	365.00	405.00	40.00	SS	HRD GRY		0	
54	FC 278	C	405.00	414.90	9.90	SS	HRD		0	CORED
55	FC 278	C	414.90	416.55	1.65	SS	GRY		0	CORED
56	FC 278	C	416.55	417.00	.45	SH	CRB		0	CORED
57	FC 278	C	417.00	417.20	.20	SH	BNY		0	CORED
58	FC 278	C	417.20	417.45	.25	CO		D	0	CORED
59	FC 278	C	417.45	418.00	.55	SH	CRB	D	0	CORED
60	FC 278	C	418.00	418.20	.20	CO		D	0	CORED
61	FC 278	C	418.20	418.30	.10	SH	BNY	D	0	CORED
62	FC 278	C	418.30	419.45	1.15	CO		D	0	CORED
63	FC 278	C	419.45	419.60	.15	SH	CRB	D	0	CORED
64	FC 278	C	419.60	420.90	1.30	CO		D	0	CORED
65	FC 278	C	420.90	421.30	.40	BO		D	0	CORED
66	FC 278	C	421.30	422.15	.85	CO		D	0	CORED
67	FC 278	C	422.15	422.75	.60	SH	CRB		0	CORED
68	FC 278	C	422.75	423.20	.45	CL			0	CORED
69	FC 278	C	423.20	423.55	.35	ST	SDY CLY		0	CORED
70	FC 278	C	423.55	424.60	1.05	CO		C	0	CORED
71	FC 278	C	424.60	424.90	.30	CO		C	0	CORED
72	FC 278	C	424.90	425.35	.45	CO		C	0	CORED
73	FC 278	C	425.35	425.55	.20	SH	CRB	C	0	CORED
74	FC 278	C	425.55	426.20	.65	CO		C	0	CORED
75	FC 278	C	426.20	426.40	.20	ST	COL	C	0	CORED
76	FC 278	C	426.40	428.30	1.90	CO		C	0	CORED
77	FC 278	C	428.30	428.70	.40	ST	BRN	C	0	CORED
78	FC 278	C	428.70	430.65	1.95	CO		C	0	CORED
79	FC 278	C	430.65	430.80	.15	SS	HRD WHT		0	CORED
80	FC 278	C	430.80	434.90	4.10	SS			0	CORED
81	FC 278	C	434.90	435.10	.20	SH			0	CORED
82	FC 278	C	435.10	435.45	.35	SH	GRY SDY		0	CORED
83	FC 278	C	435.45	435.95	.50	SH	SLY		0	CORED
84	FC 278	C	435.95	438.90	2.95	SH	GRY SDY		0	CORED
85	FC 278	C	438.90	760.00	321.10	SS	HRD BH		0	

			SEAM CODE	SAMP NO	SAMPLE DEPTH FROM	TO	ANALYSIS CODE	PROXIMATE ANALYSIS %MOIS	%VOL	%CARB	%ASH	%SUL	BTU	EQUIL. MOIST	F P
1	FC 278	D		1	292.00	293.15	1	1.2	.0	.0	78.0	2.68	2213	.00	F
2	FC 278	D		2	292.00	293.15	2	.0	.0	.0	78.9	2.71	2240	.00	F
3	FC 278	D	IJ	3	294.50	295.35	1	4.8	.0	.0	64.9	2.67	3320	.00	F
4	FC 278	D	IJ	4	294.50	295.35	2	.0	.0	.0	68.2	2.81	3488	.00	F
5	FC 278	D	IJ	3	297.70	299.90	1	7.5	.0	.0	82.7	.49	270	.00	F
6	FC 278	D	IJ	3	297.70	299.90	2	.0	.0	.0	89.4	.53	292	.00	F
7	FC 278	D		7	320.85	321.70	1	8.7	.0	.0	82.4	.07	419	.00	F
8	FC 278	D		8	320.85	321.70	2	.0	.0	.0	90.2	.08	459	.00	F
9	FC 278	D		9	360.20	361.00	1	3.2	.0	.0	90.2	.16	235	.00	F
10	FC 278	D		0	360.20	361.00	2	.0	.0	.0	93.1	.17	243	.00	F
11	FC 278	D		1	416.55	417.20	1	3.5	.0	.0	36.6	.49	8242	.00	F
12	FC 278	D		2	416.55	417.20	2	.0	.0	.0	37.9	5.08	8539	.00	F

			SEAM CODE	SAMP NO	SP GR	TYPE CODE	FLOAT SINK DATA % WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE
1	FC 278	G	IJ	1	000160!	DF	8630	.00	7.61	2.40	0	0001
2	FC 278	G	IJ	2	000160!	DF	9022	.00	11.68	2.28	0	0001
3	FC 278	G	IJ	3	000160!	DS	1370	.00	58.96	9.45	0	0001
4	FC 278	G	IJ	4	000160!	DS	0978	.00	60.85	7.34	0	0001
5	FC 278	G	IJ	5	000160!	DF	9728	.00	10.22	1.50	0	0001
6	FC 278	G	IJ	6	000160!	DF	9486	.00	8.32	1.37	0	0001
7	FC 278	G	IJ	7	000160!	DF	9224	.00	8.48	1.64	0	0001
8	FC 278	G	IJ	8	000160!	DF	8087	.00	12.30	1.14	0	0001
9	FC 278	G	IJ	9	000160!	DF	9906	.00	4.94	.88	0	0001
10	FC 278	G	IJ	0	000160!	DF	9102	.00	6.53	.61	0	0001
11	FC 278	G	IJ	1	000160!	DF	9466	.00	6.85	.67	0	0001
12	FC 278	G	IJ	2	000160!	DF	9898	.00	7.41	.50	0	0001
13	FC 278	G	IJ	3	000160!	DF	9897	.00	6.48	.49	0	0001
14	FC 278	G	IJ	4	000160!	DF	9807	.00	4.20	.48	0	0001
15	FC 278	G	IJ	5	000160!	DF	9925	.00	4.82	.66	0	0001
16	FC 278	G	IJ	6	000160!	DS	0272	.00	31.72	18.38	0	0001
17	FC 278	G	IJ	7	000160!	DS	0514	.00	39.55	14.59	0	0001
18	FC 278	G	IJ	8	000160!	DS	0776	.00	46.40	.57	0	0001
19	FC 278	G	IJ	9	000160!	DS	1913	.00	41.01	.69	0	0001
20	FC 278	G	IJ	0	000160!	DS	0094	.00	36.06	1.91	0	0001
21	FC 278	G	IJ	1	000160!	DS	0898	.00	35.83	1.17	0	0001
22	FC 278	G	IJ	2	000160!	DS	0534	.00	33.35	.42	0	0001
23	FC 278	G	IJ	3	000160!	DS	0102	.00	34.86	1.18	0	0001
24	FC 278	G	IJ	4	000160!	DS	0103	.00	51.67	5.06	0	0001
25	FC 278	G	IJ	5	000160!	DS	0193	.00	30.94	1.05	0	0001
26	FC 278	G	IJ	6	000160!	DS	0075	.00	72.42	.59	0	0001
27	FC 278	G	G	7	000160!	DF	9387	.00	9.79	2.71	0	0001
28	FC 278	G	G	8	000160!	DF	9950	.00	5.76	.90	0	0001
29	FC 278	G	G	9	000160!	DF	9684	.00	7.52	.78	0	0001
30	FC 278	G	G	0	000160!	DF	5801	.00	12.71	1.01	0	0001
31	FC 278	G	CD	1	000160!	DF	7717	.00	8.84	.58	0	0001
32	FC 278	G	G	2	000160!	DS	0613	.00	38.00	14.94	0	0001
33	FC 278	G	G	3	000160!	DS	0050	.00	39.43	1.49	0	0001
34	FC 278	G	G	4	000160!	DS	0316	.00	77.30	1.36	0	0001

FLOAT SINK DATA

			SEAM CODE	SAMP NO	SP GR	TYPE CODE	% WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE
35	FC 278	G	CD	5	000160	DS	4199	.00	72.93	.48	0	0001
36	FC 278	G	CD	6	000160	DS	2283	.00	64.42	.20	0	0001

SEQ NO = 1 DRILL HOLE NO = FC 280 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 29

SECTION CODE = SURFACE ELEV. = 6014.36 HOW DET. = 6

N-COORD = 196790 E-COORD = 2066570 SOURCE = 2 LOCATION = 1

THK CORED = 318.50 THK N-CORED = 251.00 USGS = SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 280 FORMAT = B PROPERTY OR FARM = DRILLER = KRUG

DRILL CONTR = DATE DRILLED = 0474

TWP OR PLACE = COMMENTS =

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 280	C	.00	251.00	251.00	SH	DRK GRY		0	
4	FC 280	C	251.00	361.00	110.00	SH	SDY DRK GRY CAS		0	CORED
5	FC 280	C	361.00	375.45	14.45	SS	CAS LIT GRY	TF	0	CORED
6	FC 280	C	375.45	378.70	3.25	CO		K	1	CORED
7	FC 280	C	378.70	380.85	2.15	SH	CRB COL		0	CORED
8	FC 280	C	380.85	381.00	.15	SH	DRK GRY		0	CORED
10	FC 280	C	381.00	384.65	3.65	ST	MED GRY CAS		0	CORED
11	FC 280	C	384.65	385.35	.70	SS	HRD		0	CORED
12	FC 280	C	385.35	388.20	2.85	ST	SDY DRK GRY		0	CORED
13	FC 280	C	388.20	388.80	.60	ST	SHY CRB CAS		0	CORED
14	FC 280	C	388.80	391.80	3.00	CO		K	3	CORED
15	FC 280	C	391.80	393.00	1.20	SH	CRB COL		0	CORED
16	FC 280	C	393.00	395.00	2.00	SH	DRK GRY		0	CORED
17	FC 280	C	395.00	395.85	.85	ST	GRY SDY		0	CORED
18	FC 280	C	395.85	395.95	.10	SS	HRD		0	CORED
19	FC 280	C	395.95	397.00	1.05	SS	SLY		0	CORED
20	FC 280	C	397.00	400.00	3.00	SS	SLY		0	CORED
21	FC 280	C	400.00	400.70	.70	ST	SDY DRK GRY		0	CORED
22	FC 280	C	400.70	401.00	.30	ST			0	CORED
23	FC 280	C	401.00	431.45	30.45	SS	LIT GRY HRD		0	CORED
24	FC 280	C	431.45	433.30	1.85	SS	CAS HRD		0	CORED
25	FC 280	C	433.30	434.35	1.05	CO		J	0	CORED
26	FC 280	C	434.35	436.10	1.75	SH	COL CRB		0	CORED
27	FC 280	C	436.10	438.35	2.25	CO		LJ	0	CORED
28	FC 280	C	438.35	439.00	.65	SH	COL CRB		0	CORED
29	FC 280	C	439.00	439.25	.25	ST	LIT BRN SFT		0	CORED
30	FC 280	C	439.25	445.00	5.75	CO		UI	0	
31	FC 280	C	445.00	459.85	14.85	CO		LI	0	
32	FC 280	C	459.85	461.00	1.15	CL	GRY SFT		0	CORED
33	FC 280	C	461.00	463.10	2.10	SH	DRK GRY SFT		0	CORED
34	FC 280	C	463.10	467.90	4.80	SH	MED GRY SDY		0	CORED
35	FC 280	C	467.90	501.00	33.10	SS	LIT GRY HRD		0	CORED
36	FC 280	C	501.00	501.20	.20	SS	SHY MED GRY		0	CORED
37	FC 280	C	501.20	505.00	3.80	SS	CAS LIT GRY		0	CORED

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
38	FC 280	C	505.00	505.90	.90	SH	CRB COL		0	CORED
39	FC 280	C	505.90	506.65	.75	ST			0	CORED
40	FC 280	C	506.65	509.60	2.95	SH	GRY SFT		0	CORED
41	FC 280	C	509.60	509.95	.35	CO		G	0	
42	FC 280	C	509.95	510.10	.15	ST	BRN	G	0	CORED
43	FC 280	C	510.10	515.10	5.00	CO		G	0	CORED
44	FC 280	C	515.10	515.25	.15	SH	CRB COL		0	CORED
45	FC 280	C	515.25	519.00	3.75	SH	DRK GRY		0	CORED
46	FC 280	C	519.00	520.00	1.00	SH	GRY SDY CAS		0	CORED
47	FC 280	C	520.00	530.00	10.00	SS	CAS LIT GRY HRD		0	CORED
48	FC 280	C	530.00	550.00	20.00	SS	LIT GRY HRD		0	CORED
49	FC 280	C	550.00	552.65	2.65	SS	LIT GRY CAS HRD		0	CORED
50	FC 280	C	552.65	553.85	1.20	BO			0	CORED
51	FC 280	C	553.85	554.00	.15	SH	CRB HRD		0	CORED
52	FC 280	C	554.00	554.40	.40	SH	CRB HRD BNY		0	CORED
53	FC 280	C	554.40	555.60	1.20	CO		D	0	CORED
54	FC 280	C	555.60	555.90	.30	SH	CRB BNY	D	0	CORED
55	FC 280	C	555.90	556.00	.10	BO		D	0	CORED
56	FC 280	C	556.00	558.00	2.00	CO		D	0	CORED
57	FC 280	C	558.00	558.60	.60	SH	CRB BNY		0	CORED
58	FC 280	C	558.60	559.40	.80	CL	SDY SFT	C	0	CORED
59	FC 280	C	559.40	564.60	5.20	CO		C	0	CORED
60	FC 280	C	564.60	565.30	.70	SH	SDY CLY	C	0	CORED
61	FC 280	C	565.30	566.00	.70	CO		C	0	CORED
62	FC 280	C	566.00	566.20	.20	SS	CRB HRD		0	CORED
63	FC 280	C	566.20	568.40	2.20	SH	LIT GRY SDY HRD		0	CORED
64	FC 280	C	568.40	569.50	1.10	SH	DRK GRY BH		0	

			SEAM CODE	SAMP NO	SAMPLE DEPTH FROM	SAMPLE DEPTH TO	ANALYSIS CODE	PROXIMATE ANALYSIS %MOIS	%VOL	%CARB	%ASH	%SUL	BTU	EQUIL. MOIST	F P
1	FC 280	D	IJ	1	435.00	436.10	1	4.9	.0	.0	73.7	.97	1849	.00	F
2	FC 280	D	IJ	1	435.00	436.10	2	.0	.0	.0	77.4	1.02	1944	.00	F
3	FC 280	D	IJ	2	438.35	439.25	1	5.3	.0	.0	57.3	1.36	4007	.00	F
4	FC 280	D	IJ	2	438.35	439.25	2	.0	.0	.0	60.5	1.44	4230	.00	F
5	FC 280	D	CD	3	459.90	462.00	1	4.7	.0	.0	89.0	.03	10	.00	F
6	FC 280	D	CD	3	459.90	462.00	2	.0	.0	.0	93.4	.03	11	.00	F

			SEAM CODE	SAMP NO	SP GR	TYPE CODE	FLOAT SINK DATA % WT.	% VOL.	% ASH	% SUL	BTU	SCREEN SIZE
1	FC 280	G	I	1	000160	DF	9232	.00	9.99	1.48	0	0001
2	FC 280	G	I	2	000160	DF	8970	.00	15.66	1.96	0	0001
3	FC 280	G	I	3	000160	DF	9470	.00	7.95	.78	0	0001
4	FC 280	G	I	4	000160	DF	9437	.00	6.96	.54	0	0001
5	FC 280	G	I	5	000160	DF	9893	.00	11.33	.42	0	0001
6	FC 280	G	I	6	000160	DF	9507	.00	5.10	.31	0	0001
7	FC 280	G	I	7	000160	DF	9767	.00	10.81	.37	0	0001

			SEAM CODE	SAMP NO	SP GR	TYPE CODE	FLOAT SINK DATA % WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE
8	FC 280	G	I	8	000160I	DF	9912	.00	5.85	.32	0	0001
9	FC 280	G	I	9	000160I	DF	9939	.00	7.82	.33	0	0001
10	FC 280	G	I	0	000160I	DF	9666	.00	4.65	.30	0	0001
11	FC 280	G	I	1	000160I	DF	9879	.00	4.95	.44	0	0001
12	FC 280	G	I	2	000160I	DS	0768	.00	50.07	8.51	0	0001
13	FC 280	G	I	3	000160I	DS	1030	.00	43.76	5.09	0	0001
14	FC 280	G	I	4	000160I	DS	0530	.00	44.02	17.83	0	0001
15	FC 280	G	I	5	000160I	DS	0563	.00	74.20	.12	0	0001
16	FC 280	G	I	6	000160I	DS	0107	.00	22.45	.48	0	0001
17	FC 280	G	I	7	000160I	DS	0493	.00	50.36	.71	0	0001
18	FC 280	G	I	8	000160I	DS	0233	.00	32.64	.78	0	0001
19	FC 280	G	I	9	000160I	DS	0088	.00	46.71	.49	0	0001
20	FC 280	G	I	0	000160I	DS	0061	.00	47.78	1.26	0	0001
21	FC 280	G	I	1	000160I	DS	0334	.00	43.44	.23	0	0001
22	FC 280	G	I	2	000160I	DS	0121	.00	56.60	.28	0	0001

SEQ NO = 1 DRILL HOLE NO = FC 284 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 32

SECTION CODE = SURFACE ELEV. = 5959.12 HOW DET. = 6

N-COORD = 190274 E-COORD = 2065033 SOURCE = 2 LOCATION = 1

THK CORED = 100.00 THK N-CORED = 400.00 USGS = SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 284 FORMAT = B PROPERTY OR FARM = DRILLER = KNIGHT

DRILL CONTR = DATE DRILLED = 0574

TWP OR PLACE = COMMENTS = BAD CIRCULATION

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 284	C	.00	55.00	55.00	SG			0	
4	FC 284	C	55.00	55.00	.00	SS		TF	0	
5	FC 284	C	55.00	119.50	64.50	SS	WEA		0	
7	FC 284	C	119.50	160.00	40.50	SS	GRY		0	
8	FC 284	C	160.00	164.15	4.15	SS	CAS GRY WHT		0	CORED
9	FC 284	C	164.15	165.50	1.35	CO		K	0	CORED
10	FC 284	C	165.50	165.65	.15	BO		K	0	CORED
11	FC 284	C	165.65	167.70	2.05	SH	COL SFT		0	CORED
12	FC 284	C	167.70	168.50	.80	CO		K	0	CORED
13	FC 284	C	168.50	168.80	.30	BO		K	0	CORED
14	FC 284	C	168.80	169.20	.40	CO		K	0	CORED
15	FC 284	C	169.20	169.60	.40	BO		K	0	CORED
16	FC 284	C	169.60	170.00	.40	SH	GRY		0	CORED
17	FC 284	C	170.00	170.45	.45	SH	DRK GRY		0	CORED
18	FC 284	C	170.45	173.15	2.70	SS	CAS		0	CORED
19	FC 284	C	173.15	174.25	1.10	ST	CAS SFT		0	CORED
20	FC 284	C	174.25	177.40	3.15	SH	CAS SFT		0	CORED
21	FC 284	C	177.40	178.00	.60	CO		J	1	CORED RIDER
22	FC 284	C	178.00	178.25	.25	BO		J	1	CORED
23	FC 284	C	178.25	179.20	.95	SH	GRY BRN		0	CORED
24	FC 284	C	179.20	180.00	.80	SH	GRY SFT		0	CORED
25	FC 284	C	180.00	181.05	1.05	BO		J	3	CORED
26	FC 284	C	181.05	181.60	.55	CO		J	3	CORED
27	FC 284	C	181.60	181.90	.30	BO			0	CORED
28	FC 284	C	181.90	182.20	.30	SH	GRY SFT		0	CORED
29	FC 284	C	182.20	182.95	.75	ST	SDY		0	CORED
30	FC 284	C	182.95	184.75	1.80	CO		UI	0	CORED
31	FC 284	C	184.75	184.90	.15	BO		UI	0	CORED
32	FC 284	C	184.90	188.45	3.55	CO		UI	0	CORED
33	FC 284	C	188.45	188.65	.20	CO		UI	0	CORED
34	FC 284	C	188.65	196.55	7.90	SH	CAS SFT LIT GRY		0	CORED
35	FC 284	C	196.55	197.45	.90	BO	SFT		0	CORED
36	FC 284	C	197.45	197.70	.25	CO		LI	1	CORED
37	FC 284	C	197.70	197.85	.15	BO		LI	1	CORED

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
38	FC 284	C	197.85	198.05	.20	CO		LI	1	CORED
39	FC 284	C	198.05	199.00	.95	BO		LI	1	CORED
40	FC 284	C	199.00	200.00	1.00	BO		LI	1	CORED
41	FC 284	C	200.00	205.60	5.60	CO		LI	1	CORED
42	FC 284	C	205.60	206.00	.40	SH	CRB COL		0	CORED
43	FC 284	C	206.00	207.10	1.10	SH	GRY SLY		0	CORED
44	FC 284	C	207.10	209.80	2.70	SS	LIT GRY CAS		0	CORED
45	FC 284	C	209.80	210.00	.20	ST			0	CORED
46	FC 284	C	210.00	210.70	.70	SS	LIT GRY HRD		0	CORED
47	FC 284	C	210.70	212.50	1.80	SH	CAS MED GRY		0	CORED
48	FC 284	C	212.50	212.60	.10	SH	CRB COL		0	CORED
49	FC 284	C	212.60	216.10	3.50	CO		LI	5	CORED
50	FC 284	C	216.10	219.80	3.70	SS	CAS LIT GRY		0	CORED
51	FC 284	C	219.80	220.00	.20	SS			0	CORED
52	FC 284	C	220.00	255.00	35.00	SH			0	
53	FC 284	C	255.00	256.50	1.50	SH	CAS DRK GRY		0	CORED
54	FC 284	C	256.50	257.50	1.00	SH	CRB CAS		0	CORED
55	FC 284	C	257.50	260.00	2.50	SH	MED GRY CLY		0	CORED
56	FC 284	C	260.00	261.00	1.00	SH	CRB CLY		0	CORED
57	FC 284	C	261.00	262.30	1.30	SH	CAS MED GRY HRD		0	CORED
58	FC 284	C	262.30	263.00	.70	SH	CRB CAS COL		0	CORED
59	FC 284	C	263.00	264.65	1.65	CO		G	0	CORED
60	FC 284	C	264.65	265.00	.35	CO		G	0	CORED
61	FC 284	C	265.00	268.60	3.60	CO		G	0	CORED
62	FC 284	C	268.60	269.00	.40	SH	CRB COL		0	CORED
63	FC 284	C	269.00	275.00	6.00	SS	GRY SHY		0	CORED
64	FC 284	C	275.00	280.00	5.00	SS			0	
65	FC 284	C	280.00	310.00	30.00	SH			0	
66	FC 284	C	310.00	314.30	4.30	SH	DRK GRY SLY SDY		0	CORED
67	FC 284	C	314.30	315.20	.90	CO		D	0	CORED
68	FC 284	C	315.20	316.30	1.10	SH	CRB COL		0	CORED
69	FC 284	C	316.30	318.25	1.95	CO		C	0	CORED
70	FC 284	C	318.25	318.60	.35	BO	SDY COL	C	0	CORED
71	FC 284	C	318.60	319.50	.90	CO		C	0	CORED
72	FC 284	C	319.50	319.70	.20	ST	GRY BRN HRD	C	0	CORED
73	FC 284	C	319.70	320.35	.65	CO		C	0	CORED
74	FC 284	C	320.35	320.85	.50	CO		C	0	CORED
75	FC 284	C	320.85	321.70	.85	CO		C	0	CORED
76	FC 284	C	321.70	322.10	.40	CO		C	0	CORED
77	FC 284	C	322.10	322.45	.35	ST	DRK TAN CRB	C	0	CORED
78	FC 284	C	322.45	322.65	.20	SH		C	0	CORED
79	FC 284	C	322.65	322.75	.10	SH	CRB SLY	C	0	CORED
80	FC 284	C	322.75	323.85	1.10	CO		C	0	CORED
81	FC 284	C	323.85	324.00	.15	SH	CRB SFT		0	CORED
82	FC 284	C	324.00	325.35	1.35	CL	MED GRY HRD		0	CORED
83	FC 284	C	325.35	325.60	.25	ST	DRK GRY HRD		0	CORED
84	FC 284	C	325.60	329.25	3.65	CL	MED GRY SFT		0	CORED
85	FC 284	C	329.25	329.90	.65	SH	MED GRY		0	CORED
86	FC 284	C	329.90	330.00	.10	SH	MED GRY		0	CORED
87	FC 284	C	330.00	500.00	170.00	SS	BH		0	

			SEAM CODE	SAMP NO	SAMPLE DEPTH FROM	TO	ANALYSIS CODE	PROXIMATE ANALYSIS %MOIS	%VOL	%CARB	%ASH	%SUL	BTU	EQUIL. MOIST	F P
1	FC 284	D		1	180.00	181.05	1	3.7	.0	.0	21.7	2.41	10440	.00	F
2	FC 284	D		1	180.00	181.05	2	.0	.0	.0	22.6	2.50	10836	.00	F
3	FC 284	D		2	188.65	190.00	1	7.4	.0	.0	84.8	.10	332	.00	F
4	FC 284	D		2	188.65	190.00	2	.0	.0	.0	91.6	.11	359	.00	F
5	FC 284	D		3	196.00	197.45	1	5.0	.0	.0	75.9	.21	1812	.00	F
6	FC 284	D		3	196.00	197.45	2	.0	.0	.0	79.9	.22	1812	.00	F
7	FC 284	D		4	205.60	206.00	1	5.4	.0	.0	69.4	.50	2660	.00	F
8	FC 284	D		4	205.60	206.60	2	.0	.0	.0	73.4	.53	2813	.00	F
9	FC 284	D		5	212.00	212.60	1	1.9	.0	.0	83.8	.81	1370	.00	F
10	FC 284	D		5	212.00	212.60	2	.0	.0	.0	85.5	.83	1397	.00	F
11	FC 284	D		6	216.10	217.00	1	1.2	.0	.0	42.1	.05	368	.00	F
12	FC 284	D		6	216.10	217.00	2	.0	.0	.0	42.6	.05	373	.00	F

			SEAM CODE	SAMP NO	SP GR	TYPE CODE	FLOAT SINK DATA % WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE
1	FC 284	G	I	1	0001601	DF	2794	.00	8.99	1.45	0	0001
1	FC 284	G	I	1	0001601	DF	2794	.00	8.99	1.45	0	0001
2	FC 284	G	I	2	0001601	DF	9190	.00	5.70	.74	0	0001
2	FC 284	G	I	2	0001601	DF	9190	.00	5.70	.74	0	0001
3	FC 284	G	I	3	0001601	DF	9810	.00	5.76	.55	0	0001
3	FC 284	G	I	3	0001601	DF	9810	.00	5.76	.55	0	0001
4	FC 284	G	I	4	0001601	DF	8180	.00	6.77	.42	0	0001
4	FC 284	G	I	4	0001601	DF	8180	.00	6.77	.42	0	0001
5	FC 284	G	I	5	0001601	DF	8180	.00	6.77	.42	0	0001
5	FC 284	G	I	5	0001601	DF	6468	.00	15.06	.69	0	0001
6	FC 284	G	I	6	0001601	DF	9498	.00	7.40	.48	0	0001
7	FC 284	G	I	7	0001601	DF	9814	.00	7.74	.47	0	0001
8	FC 284	G	I	8	0001601	DF	9710	.00	5.42	.66	0	0001
9	FC 284	G	I	9	0001601	DF	9731	.00	5.89	.78	0	0001
10	FC 284	G	I	0	0001601	DS	7206	.00	77.89	.71	0	0001
11	FC 284	G	I	1	0001601	DS	0810	.00	45.98	21.96	0	0001
12	FC 284	G	I	2	0001601	DS	0190	.00	52.29	.47	0	0001
13	FC 284	G	I	3	0001601	DS	1820	.00	64.20	.16	0	0001
14	FC 284	G	I	4	0001601	DS	3532	.00	60.13	.61	0	0001
15	FC 284	G	I	5	0001601	DS	0502	.00	53.23	.36	0	0001
16	FC 284	G	I	6	0001601	DS	0186	.00	40.99	.84	0	0001
17	FC 284	G	I	7	0001601	DS	0290	.00	42.37	1.38	0	0001
18	FC 284	G	I	8	0001601	DS	3920	.00	58.61	16.19	0	0001

SEQ NO = 1 DRILL HOLE NO = FC 287 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 32

SECTION CODE = SURFACE ELEV. = 5974.84 HOW DET. = 6

N-COORD = 191048 E-COORD = 2063356 SOURCE = 2 LOCATION = 1

THK CORED = 70.00 THK N-CORED = 550.00 USGS = SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 287 FORMAT = B PROPERTY OR FARM = DRILLER = KNIGHT

DRILL CONTR = DATE DRILLED = 0574

TWP OR PLACE = COMMENTS =

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 287	C	.00	215.00	215.00	SH	GRY		0	
4	FC 287	C	215.00	215.00	.00	SS		TF	0	
5	FC 287	C	215.00	280.00	65.00	SS	GRY		0	
6	FC 287	C	280.00	282.40	2.40	CO		UK	0	CORED RIDER
7	FC 287	C	282.40	284.00	1.60	ST	CRB		0	CORED
8	FC 287	C	284.00	286.45	2.45	SS	HRD		0	CORED
9	FC 287	C	286.45	287.00	.55	SH	CRB COL		0	CORED
10	FC 287	C	287.00	287.50	.50	BO			0	CORED
11	FC 287	C	287.50	288.15	.65	SH	CRB COL		0	CORED
12	FC 287	C	288.15	289.75	1.60	ST	BRN GRY		0	CORED
13	FC 287	C	289.75	290.00	.25	SH			0	CORED LOSS
14	FC 287	C	290.00	293.90	3.90	SH	SDY GRY		0	CORED
15	FC 287	C	293.90	298.00	4.10	SS	SDY HRD		0	CORED
16	FC 287	C	298.00	298.90	.90	SH	CRB COL		0	CORED
17	FC 287	C	298.90	300.65	1.75	CO		K	0	CORED
18	FC 287	C	300.65	301.10	.45	SS	CRB COL	K	0	CORED
19	FC 287	C	301.10	303.00	1.90	CO		K	0	CORED
20	FC 287	C	303.00	303.15	.15	ST	CRB COL		0	CORED
21	FC 287	C	303.15	308.65	5.50	SS	CRB HRD		0	CORED
22	FC 287	C	308.65	309.50	.85	ST	CRB COL		0	CORED
23	FC 287	C	309.50	311.75	2.25	SS	LIT GRY HRD COL		0	CORED
24	FC 287	C	311.75	313.25	1.50	ST	BRN LIT GRY		0	CORED
25	FC 287	C	313.25	315.55	2.30	SH	CRB COL		0	CORED
26	FC 287	C	315.55	317.00	1.45	CO		J	0	CORED
27	FC 287	C	317.00	317.50	.50	SH	CRB COL BRN	J	0	CORED
28	FC 287	C	317.50	319.45	1.95	CO		J	0	CORED
29	FC 287	C	319.45	319.70	.25	SH	CRB COL BRN		0	CORED
30	FC 287	C	319.70	320.00	.30	SS			0	CORED LOSS
31	FC 287	C	320.00	320.50	.50	SS	SFT CRB COL		0	CORED
32	FC 287	C	320.50	320.70	.20	SH	CRB COL		0	CORED
33	FC 287	C	320.70	328.25	7.55	CO		UI	0	CORED
34	FC 287	C	328.25	329.20	.95	SH	CRB COL		0	CORED
35	FC 287	C	329.20	337.40	8.20	CO		LI	0	CORED
36	FC 287	C	337.40	338.20	.80	SH	CRB		0	CORED

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
37	FC 287	C	338.20	346.70	8.50	SS	HRD COL		0	CORED
38	FC 287	C	346.70	349.95	3.25	SH	CRB BRN DRK GRY		0	CORED
39	FC 287	C	349.95	350.00	.05	SH			0	CORED LOSS
40	FC 287	C	350.00	357.10	7.10	SS			0	
41	FC 287	C	357.10	368.30	11.20	SH	SSS		0	
42	FC 287	C	368.30	403.40	35.10	SS			0	
43	FC 287	C	403.40	405.80	2.40	SH			0	
44	FC 287	C	405.80	411.10	5.30	CO		G	0	
45	FC 287	C	411.10	412.40	1.30	SH			0	
46	FC 287	C	412.40	458.60	46.20	SS			0	
47	FC 287	C	458.60	463.50	4.90	SH			0	
48	FC 287	C	463.50	467.40	3.90	CO		D	0	
49	FC 287	C	467.40	469.00	1.60	SH			0	
50	FC 287	C	469.00	475.40	6.40	CO		C	0	
51	FC 287	C	475.40	480.40	5.00	SH			0	
52	FC 287	C	480.40	557.20	76.80	SS			0	
53	FC 287	C	557.20	575.30	18.10	SH			0	
54	FC 287	C	575.30	579.00	3.70	CO		A	0	
55	FC 287	C	579.00	580.80	1.80	SH			0	
56	FC 287	C	580.80	620.00	39.20	SS	BH		0	

			SEAM CODE	SAMP NO	SAMPLE DEPTH FROM	SAMPLE DEPTH TO	ANALYSIS CODE	PROXIMATE ANALYSIS %MOIS	%VOL	%CARB	%ASH	%SUL	BTU	EQUIL. MOIST	F P
1	FC 287	D	I	1	319.70	320.50	1	5.9	.0	.0	82.1	.02	50	.00	F
2	FC 287	D	I	2	319.70	320.50	2	.0	.0	.0	87.3	.02	53	.00	F
3	FC 287	D	I	3	337.40	338.20	1	4.7	.0	.0	66.5	.98	3393	.00	F
4	FC 287	D	I	4	337.40	338.20	2	.0	.0	.0	69.7	1.03	3561	.00	F

			SEAM CODE	SAMP NO	SP GR	TYPE CODE	FLOAT SINK DATA % WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE
1	FC 287	G	I	1	000160	DF	5932	.00	15.60	1.33	0	0001
2	FC 287	G	I	2	000160	DF	7530	.00	12.85	.62	0	0001
3	FC 287	G	I	3	000160	DF	8456	.00	6.75	.46	0	0001
4	FC 287	G	I	4	000160	DF	9451	.00	6.95	.58	0	0001
5	FC 287	G	I	5	000160	DF	9824	.00	7.10	.31	0	0001
6	FC 287	G	I	6	000160	DF	4230	.00	12.01	.73	0	0001
7	FC 287	G	I	7	000160	DF	9520	.00	9.27	.43	0	0001
8	FC 287	G	I	8	000160	DF	9180	.00	9.15	.73	0	0001
9	FC 287	G	I	9	000160	DF	9556	.00	7.96	.45	0	0001
10	FC 287	G	I	0	000160	DF	9945	.00	6.45	.54	0	0001
11	FC 287	G	I	1	000160	DF	9932	.00	6.92	.63	0	0001
12	FC 287	G	I	2	000160	DS	4268	.00	67.41	1.77	0	0001
13	FC 287	G	I	3	000160	DS	2470	.00	73.72	.13	0	0001
14	FC 287	G	I	4	000160	DS	1544	.00	68.42	.22	0	0001
15	FC 287	G	I	5	000160	DS	0549	.00	34.84	.36	0	0001
16	FC 287	G	I	6	000160	DS	0176	.00	39.81	.69	0	0001

			SEAM CODE	SAMP NO	SP GR	TYPE CODE	FLOAT SINK DATA % WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE
17	FC 287	G	I	7	000160!	DS	5770	.00	78.27	.10	0	0001
18	FC 287	G	I	8	000160!	DS	0480	.00	51.54	.28	0	0001
19	FC 287	G	I	9	000160!	DS	0820	.00	67.91	1.54	0	0001
20	FC 287	G	I	0	000160!	DS	0444	.00	44.81	.40	0	0001
21	FC 287	G	I	1	000160!	DS	0055	.00	37.10	.72	0	0001
22	FC 287	G	I	2	000160!	DS	0068	.00	55.49	1.22	0	0001

SEQ NO = 1 DRILL HOLE NO = FC 289 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 32

SECTION CODE = SURFACE ELEV. = 5940.43 HOW DET. = 6

N-COORD = 191509 E-COORD = 2065967 SOURCE = 2 LOCATION = 1

THK CORED = 54.70 THK N-CORED = 290.30 USGS = SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 289 FORMAT = B PROPERTY OR FARM = DRILLER = GORDON

DRILL CONTR = DATE DRILLED = 0474

TWP OR PLACE = COMMENTS =

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 289	C	.00	4.70	4.70	SN			0	
4	FC 289	C	4.70	36.90	32.20	SN	BRN		0	
5	FC 289	C	36.90	40.60	3.70	GR	BRN SDY		0	
6	FC 289	C	40.60	46.40	5.80	SN	BRN		0	
7	FC 289	C	46.40	165.00	118.60	SS	GRY HRD	TF	0	
8	FC 289	C	165.00	171.85	6.85	SS	LIT GRY		0	CORED
9	FC 289	C	171.85	172.50	.65	CO		J	1	CORED
10	FC 289	C	172.50	172.65	.15	SH	CRB COL		0	CORED
11	FC 289	C	172.65	173.70	1.05	SH	CRB		0	CORED
12	FC 289	C	173.70	175.00	1.30	SH	GRY BRN SDY		0	CORED
13	FC 289	C	175.00	176.15	1.15	SH	CLY DRK GRY		0	CORED
14	FC 289	C	176.15	177.40	1.25	CO		J	3	CORED
15	FC 289	C	177.40	177.55	.15	SH	CRB		0	CORED
16	FC 289	C	177.55	178.20	.65	CS			0	CORED
17	FC 289	C	178.20	178.40	.20	SH	CRB CLY SDY		0	CORED
18	FC 289	C	178.40	184.45	6.05	CO		UI	0	CORED
19	FC 289	C	184.45	184.70	.25	SH	CRB CLY		0	CORED
20	FC 289	C	184.70	185.25	.55	CO			0	CORED
21	FC 289	C	185.25	185.35	.10	SH	CRB COL		0	CORED
22	FC 289	C	185.35	185.55	.20	ST	CRB COL		0	
23	FC 289	C	185.55	193.40	7.85	CO		LI	1	CORED
24	FC 289	C	193.40	193.60	.20	SH	CRB COL		0	CORED
25	FC 289	C	193.60	198.75	5.15	CO		LI	5	CORED
26	FC 289	C	198.75	198.80	.05	BO			0	CORED
27	FC 289	C	198.80	202.50	3.70	ST	BLK CRB COL		0	CORED
28	FC 289	C	202.50	202.70	.20	ST			0	CORED
29	FC 289	C	202.70	208.40	5.70	SS	HRD GRY		0	
30	FC 289	C	208.40	212.20	3.80	SH	SDY		0	
31	FC 289	C	212.20	219.80	7.60	SS	HRD GRY		0	
32	FC 289	C	219.80	240.00	20.20	SH	SDY		0	
33	FC 289	C	240.00	242.00	2.00	SH	LOS S		0	CORED
34	FC 289	C	242.00	244.65	2.65	SH	CAS DRK GRY		0	CORED
35	FC 289	C	244.65	245.00	.35	SH	CRB COL		0	CORED
36	FC 289	C	245.00	246.00	1.00	CL	GRY SFT		0	CORED

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
37	FC 289	C	246.00	248.55	2.55	SS	LIT GRY HRD		0	CORED
38	FC 289	C	248.55	249.60	1.05	SH	CAS DRK GRY		0	CORED
39	FC 289	C	249.60	249.90	.30	SH	CRB COL		0	CORED
40	FC 289	C	249.90	250.00	.10	BO		G	0	CORED
41	FC 289	C	250.00	250.35	.35	CO	LOS S	G	0	CORED
42	FC 289	C	250.35	255.35	5.00	CO		G	0	CORED
43	FC 289	C	255.35	257.00	1.65	SH	DRK GRY HRD SDY		0	CORED
44	FC 289	C	257.00	267.90	10.90	SH	GRY		0	
45	FC 289	C	267.90	270.00	2.10	SH	DRK GRY		0	
46	FC 289	C	270.00	276.00	6.00	SS	GRY		0	
47	FC 289	C	276.00	288.00	12.00	SH	DRK GRY		0	
48	FC 289	C	288.00	297.00	9.00	SS	GRY		0	
49	FC 289	C	297.00	297.40	.40	SH	GRY		0	
50	FC 289	C	297.40	299.10	1.70	CO		D	0	
51	FC 289	C	299.10	300.90	1.80	SH	PTG		0	
52	FC 289	C	300.90	305.30	4.40	CO		C	0	
53	FC 289	C	305.30	306.50	1.20	SH	PTG	C	0	
54	FC 289	C	306.50	307.80	1.30	CO		C	0	
55	FC 289	C	307.80	313.60	5.80	SH	GRY		0	
56	FC 289	C	313.60	321.20	7.60	SS	GRY		0	
57	FC 289	C	321.20	321.60	.40	CO			0	RIDER
58	FC 289	C	321.60	323.20	1.60	SH	GRY		0	
59	FC 289	C	323.20	345.00	21.80	SS	GRY BH		0	

			SEAM CODE	SAMP NO	SAMPLE DEPTH FROM	SAMPLE DEPTH TO	ANALYSIS CODE	PROXIMATE ANALYSIS %MOIS	%VOL	%CARB	%ASH	%SUL	BTU	EQUIL. MOIST	F P
1	FC 289	D	IJ	1	175.00	176.15	1	5.9	.0	.0	78.6	.53	1426	.00	F
2	FC 289	D	IJ	1	175.00	176.15	2	.0	.0	.0	83.5	.56	1515	.00	F
3	FC 289	D	IJ	2	177.40	178.40	1	13.3	.0	.0	73.8	.93	823	.00	F
4	FC 289	D	IJ	2	177.40	178.40	2	.0	.0	.0	85.2	1.07	950	.00	F
5	FC 289	D	IJ	3	198.80	199.40	1	1.3	.0	.0	79.8	.10	2468	.00	F
6	FC 289	D	IJ	3	198.80	199.40	2	.0	.0	.0	80.9	.10	2500	.00	F

			SEAM CODE	SAMP NO	SP GR	TYPE CODE	FLOAT SINK DATA % WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE
	FC 289	G	IJ	1	0001601	DS	0154	.00	41.65	.39	0	0001
1	FC 289	G	IJ	1	0001601	DF	9095	.00	14.96	2.74	0	0001
2	FC 289	G	IJ	2	0001601	DF	9833	.00	6.65	1.41	0	0001
3	FC 289	G	IJ	3	0001601	DF	9940	.00	5.92	1.27	0	0001
4	FC 289	G	IJ	4	0001601	DF	8407	.00	8.30	1.46	0	0001
5	FC 289	G	IJ	5	0001601	DF	8856	.00	10.98	.71	0	0001
6	FC 289	G	IJ	6	0001601	DF	9940	.00	5.10	.80	0	0001
7	FC 289	G	IJ	7	0001601	DF	9818	.00	8.44	.52	0	0001
8	FC 289	G	IJ	8	0001601	DF	9935	.00	6.67	.47	0	0001
9	FC 289	G	IJ	9	0001601	DF	8974	.00	10.67	.62	0	0001
10	FC 289	G	IJ	0	0001601	DF	9846	.00	6.68	.47	0	0001

			SEAM CODE	SAMP NO	SP GR	TYPE CODE	FLOAT SINK DATA % WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE
11	FC 289	G	IJ	1	0001601	DF	9940	.00	4.70	.51	0	0001
12	FC 289	G	IJ	2	0001601	DS	0905	.00	41.73	5.89	0	0001
13	FC 289	G	IJ	3	0001601	DS	0167	.00	39.49	2.99	0	0001
14	FC 289	G	IJ	4	0001601	DS	0060	.00	45.78	2.58	0	0001
15	FC 289	G	IJ	5	0001601	DS	1593	.00	73.04	2.16	0	0001
16	FC 289	G	IJ	6	0001601	DS	1144	.00	57.18	.51	0	0001
17	FC 289	G	IJ	7	0001601	DS	0060	.00	38.99	.95	0	0001
18	FC 289	G	IJ	8	0001601	DS	0182	.00	43.26	.37	0	0001
19	FC 289	G	IJ	9	0001601	DS	0065	.00	37.47	.41	0	0001
20	FC 289	G	IJ	0	0001601	DS	1026	.00	54.03	.40	0	0001
21	FC 289	G	IJ	2	0001601	DS	0060	.00	46.77	.39	0	0001
22	FC 289	G	IJ	1	0001601	DS	0154	.00	41.65	.39	0	0001

SEQ NO = 1 DRILL HOLE NO = FC 290 FORMAT = A STATE = 43 COUNTY = 015 TWP = 23S RANGE = 6E SECTION = 06

SECTION CODE = SURFACE ELEV. = 6045.82 HOW DET. = 6

N-COORD = 186684 E-COORD = 2060347 SOURCE = 2 LOCATION = 1

THK CORED = 100.85 THK N-CORED = 704.15 USGS = WALKER FLAT SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 290 FORMAT = B PROPERTY OR FARM = DRILLER = KNIGHT

DRILL CONTR = DATE DRILLED = 0574

TWP OR PLACE = COMMENTS =

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 290	C	.00	288.20	288.20	SH			0	
4	FC 290	C	288.20	320.00	31.80	SS		TF	0	
5	FC 290	C	320.00	350.00	30.00	SS			0	
6	FC 290	C	350.00	352.00	2.00	CO			0	RIDER
7	FC 290	C	352.00	355.00	3.00	SH			0	
8	FC 290	C	355.00	357.50	2.50	CO			0	RIDER
9	FC 290	C	357.50	361.00	3.50	SH	SDY		0	
10	FC 290	C	361.00	368.00	7.00	SH			0	
11	FC 290	C	368.00	385.00	17.00	SS			0	
12	FC 290	C	385.00	385.60	.60	CO			0	CORED
13	FC 290	C	385.60	386.10	.50	ST	CAS		0	CORED
14	FC 290	C	386.10	388.75	2.65	CO			0	CORED
15	FC 290	C	388.75	389.95	1.20	SH	SFT SDY		0	CORED
16	FC 290	C	389.95	393.90	3.95	SS	CAS		0	CORED
17	FC 290	C	393.90	397.20	3.30	SH	CAS		0	CORED
18	FC 290	C	397.20	397.80	.60	CO			0	CORED
19	FC 290	C	397.80	397.90	.10	SS	HRD		0	CORED
20	FC 290	C	397.90	398.90	1.00	CO		K	0	CORED
21	FC 290	C	398.90	399.10	.20	BO		K	0	CORED
22	FC 290	C	399.10	401.60	2.50	CO		K	0	CORED
23	FC 290	C	401.60	402.85	1.25	ST	GRY SFT		0	CORED
24	FC 290	C	402.85	404.00	1.15	CO		J	0	CORED
25	FC 290	C	404.00	404.40	.40	SH	CRB		0	CORED
26	FC 290	C	404.40	405.40	1.00	SH	SFT		0	CORED
27	FC 290	C	405.40	410.10	4.70	CO		UI	0	CORED
28	FC 290	C	410.10	413.90	3.80	SH	SDY		0	CORED
29	FC 290	C	413.90	417.85	3.95	SS	HRD		0	CORED
30	FC 290	C	417.85	418.50	.65	ST	SDY HRD		0	CORED
31	FC 290	C	418.50	419.10	.60	SS	HRD		0	CORED
32	FC 290	C	419.10	419.85	.75	SH	DRK GRY CLY		0	CORED
33	FC 290	C	419.85	420.55	.70	SH	GRY SDY		0	CORED
34	FC 290	C	420.55	422.30	1.75	SS	CAS HRD		0	CORED
35	FC 290	C	422.30	427.85	5.55	ST	SDY HRD		0	CORED
36	FC 290	C	427.85	429.55	1.70	SS	CAS		0	CORED

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
37	FC 290	C	429.55	432.65	3.10	SS	HRD SLY		0	CORED
38	FC 290	C	432.65	433.20	.55	ST			0	CORED
39	FC 290	C	433.20	446.25	13.05	CO		LI	0	CORED
40	FC 290	C	446.25	446.65	.40	SH	SFT CLY		0	CORED
41	FC 290	C	446.65	452.65	6.00	SH	CRB SLY		0	CORED
42	FC 290	C	452.65	455.85	3.20	ST	HRD SHY		0	CORED
43	FC 290	C	455.85	493.20	37.35	SH			0	
44	FC 290	C	493.20	501.50	8.30	SS			0	
45	FC 290	C	501.50	507.50	6.00	CO		G	0	
46	FC 290	C	507.50	517.40	9.90	SH			0	
47	FC 290	C	517.40	576.10	58.70	SS			0	
48	FC 290	C	576.10	581.00	4.90	CO		D	0	
49	FC 290	C	581.00	583.20	2.20	SH			0	
50	FC 290	C	583.20	586.40	3.20	CO		C	0	
51	FC 290	C	586.40	603.00	16.60	SH			0	
52	FC 290	C	603.00	624.40	21.40	SS			0	
53	FC 290	C	624.40	630.00	5.60	SH	SSS		0	
54	FC 290	C	630.00	631.00	1.00	SH	CAS DRK GRY		0	CORED
55	FC 290	C	631.00	632.90	1.90	SH	SDY SLY		0	CORED
56	FC 290	C	632.90	636.05	3.15	ST	SDY		0	CORED
57	FC 290	C	636.05	637.20	1.15	SS	HRD COL		0	CORED
58	FC 290	C	637.20	639.60	2.40	CO		A	0	CORED
59	FC 290	C	639.60	640.00	.40	CO		A	0	CORED
60	FC 290	C	640.00	653.90	13.90	CO		A	0	CORED
61	FC 290	C	653.90	655.45	1.55	SH	CRB COL		0	CORED
62	FC 290	C	655.45	659.90	4.45	SS	HRD		0	CORED
63	FC 290	C	659.90	660.00	.10	SS			0	CORED
64	FC 290	C	660.00	665.00	5.00	SH			0	
65	FC 290	C	665.00	693.00	28.00	SS			0	
66	FC 290	C	693.00	805.00	112.00	SH	BH		0	

			SEAM CODE	SAMP NO	SAMPLE DEPTH FROM	SAMPLE DEPTH TO	ANALYSIS CODE	PROXIMATE ANALYSIS %MOIS	%VOL	%CARB	%ASH	%SUL	BTU	EQUIL. MOIST	F P
1	FC 290	D		1	431.55	433.20	1	2.0	.0	.0	85.7	.14	1011	.00	F
2	FC 290	D		2	431.55	433.20	2	.0	.0	.0	87.5	.14	1032	.00	F
3	FC 290	D		3	446.25	448.65	1	5.3	.0	.0	71.4	1.03	2167	.00	F
4	FC 290	D		4	446.25	448.65	2	.0	.0	.0	75.4	1.09	2289	.00	F
5	FC 290	D		5	636.05	637.20	2	.9	.0	.0	93.6	.47	146	.00	F
6	FC 290	D		6	636.05	637.20	2	.0	.0	.0	94.4	.47	147	.00	F
7	FC 290	D		7	653.90	655.45	1	2.2	.0	.0	85.5	2.01	719	.00	F
8	FC 290	D		8	653.90	655.45	2	.0	.0	.0	87.4	2.05	735	.00	F

			SEAM CODE	SAMP NO	SP GR	TYPE CODE	FLOAT SINK DATA % WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE
			SEAM CODE	SAMP NO	SP GR	TYPE CODE	FLOAT SINK DATA % WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE
1	FC 290	G	I	1	0001601	DF	9005	.00	6.59	.63	0	0001
2	FC 290	G	I	2	0001601	DF	9822	.00	7.74	.56	0	0001
3	FC 290	G	I	3	0001601	DF	9677	.00	7.58	.46	0	0001
4	FC 290	G	I	4	0001601	DF	9840	.00	7.62	.36	0	0001
5	FC 290	G	I	5	0001601	DF	9807	.00	5.84	.41	0	0001
6	FC 290	G	I	6	0001601	DF	9939	.00	9.99	.48	0	0001
7	FC 290	G	I	7	0001601	DF	9920	.00	5.16	2.00	0	0001
8	FC 290	G	I	8	0001601	DF	9852	.00	10.64	1.07	0	0001
9	FC 290	G	I	9	0001601	DS	0995	.00	74.35	.43	0	0001
10	FC 290	G	I	0	0001601	DS	0178	.00	29.07	.45	0	0001
11	FC 290	G	I	1	0001601	DS	0323	.00	43.64	.74	0	0001
12	FC 290	G	I	2	0001601	DS	0160	.00	36.01	.60	0	0001
13	FC 290	G	I	3	0001601	DS	0193	.00	28.74	.64	0	0001
14	FC 290	G	I	4	0001601	DS	0061	.00	34.51	.60	0	0001
15	FC 290	G	I	5	0001601	DS	0080	.00	45.06	6.42	0	0001
16	FC 290	G	I	6	0001601	DS	0148	.00	53.50	1.24	0	0001
17	FC 290	G	A	7	0001601	DF	7888	.00	11.25	.90	0	0001
18	FC 290	G	A	8	0001601	DF	9930	.00	8.39	.53	0	0001
19	FC 290	G	A	9	0001601	DF	9884	.00	6.22	.94	0	0001
20	FC 290	G	A	0	0001601	DF	9852	.00	7.18	.58	0	0001
21	FC 290	G	A	1	0001601	DF	9755	.00	4.60	.97	0	0001
22	FC 290	G	A	2	0001601	DF	9870	.00	5.14	.61	0	0001
23	FC 290	G	A	3	0001601	DF	8242	.00	9.44	2.47	0	0001
24	FC 290	G	A	4	0001601	DF	2160	.00	26.00	3.94	0	0001
25	FC 290	G	A	5	0001601	DS	2112	.00	58.34	.58	0	0001
26	FC 290	G	A	6	0001601	DS	0070	.00	38.72	1.93	0	0001
27	FC 290	G	A	7	0001601	DS	0116	.00	43.19	1.21	0	0001
28	FC 290	G	A	8	0001601	DS	0148	.00	29.14	.81	0	0001
29	FC 290	G	A	9	0001601	DS	0245	.00	34.32	.68	0	0001
30	FC 290	G	A	0	0001601	DF	0130	.00	33.32	.66	0	0001
31	FC 290	G	A	1	0001601	DS	1758	.00	47.52	3.16	0	0001
32	FC 290	G	A	2	0001601	DS	7840	.00	52.96	5.03	0	0001

SEQ NO = 1 DRILL HOLE NO = FC 291 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 31

SECTION CODE = SURFACE ELEV. = 5991.83 HOW DET. = 6

N-COORD = 192107 E-COORD = 2061761 SOURCE = 2 LOCATION = 1

THK CORED = 678.00 THK N-CORED = 23.00 USGS = SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 291 FORMAT = B PROPERTY OR FARM = DRILLER = KRUG

DRILL CONTR = DATE DRILLED = 0574

TWP OR PLACE = COMMENTS =

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 291	C	.00	23.00	23.00	CL	SDY		0	
4	FC 291	C	23.00	318.50	295.50	SH	DRK GRY		0	
5	FC 291	C	318.50	331.00	12.50	SH	DRK GRY HRD		0	CORED
6	FC 291	C	331.00	352.35	21.35	SH	DRK GRY CAS SDY		0	CORED
7	FC 291	C	352.35	352.35	.00	SS		TF	0	
8	FC 291	C	352.35	357.70	5.35	SS	CAS HRD		0	CORED
9	FC 291	C	357.70	438.70	81.00	SS	GRY CAS HRD		0	CORED
10	FC 291	C	438.70	441.00	2.30	SH	DRK GRY		0	CORED
11	FC 291	C	441.00	446.20	5.20	CO		K	0	CORED
12	FC 291	C	446.20	446.55	.35	ST	CRB COL	K	0	CORED
13	FC 291	C	446.55	448.45	1.90	CO		K	0	CORED
14	FC 291	C	448.45	448.70	.25	BO	SHY		0	CORED
15	FC 291	C	448.70	450.90	2.20	SS	LIT GRY HRD		0	CORED
16	FC 291	C	450.90	451.40	.50	SH	CRB COL		0	CORED
17	FC 291	C	451.40	453.00	1.60	SS	SHY		0	CORED
18	FC 291	C	453.00	454.00	1.00	SS	SHY CAS		0	CORED
19	FC 291	C	454.00	457.35	3.35	SH			0	CORED
20	FC 291	C	457.35	458.00	.65	SS	COL		0	CORED
21	FC 291	C	458.00	459.70	1.70	CO		J	0	CORED
22	FC 291	C	459.70	459.90	.20	BO		J	0	CORED
23	FC 291	C	459.90	462.15	2.25	CO		J	0	CORED
24	FC 291	C	462.15	462.55	.40	ST	CRB COL		0	CORED
25	FC 291	C	462.55	469.70	7.15	CO		UI	0	CORED
26	FC 291	C	469.70	470.35	.65	SH	CRB COL		0	CORED
27	FC 291	C	470.35	478.70	8.35	CO		LI	0	CORED
28	FC 291	C	478.70	481.00	2.30	SH	CRB COL SFT		0	CORED
29	FC 291	C	481.00	503.10	22.10	SS	LIT GRY HRD		0	CORED
30	FC 291	C	503.10	503.80	.70	SH	GRY SFT		0	CORED
31	FC 291	C	503.80	505.15	1.35	SH			0	CORED
32	FC 291	C	505.15	507.00	1.85	SH	GRY MED HRD		0	CORED
33	FC 291	C	507.00	508.90	1.90	ST	CAS HRD SDY		0	CORED
34	FC 291	C	508.90	511.00	2.10	SH	GRY MED HRD		0	CORED
35	FC 291	C	511.00	516.80	5.80	SH	GRY SFT		0	CORED
36	FC 291	C	516.80	519.00	2.20	SS	LIT GRY		0	CORED

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
37	FC 291	C	519.00	520.70	1.70	ST	DRK GRY SFT		0	CORED
38	FC 291	C	520.70	523.20	2.50	SH	GRY SFT		0	CORED
39	FC 291	C	523.20	530.00	6.80	SS	LIT GRY HRD		0	CORED
40	FC 291	C	530.00	530.10	.10	ST	CRB HRD		0	CORED
41	FC 291	C	530.10	541.00	10.90	SS	CAS		0	CORED
42	FC 291	C	541.00	563.40	22.40	SS	GRY		0	CORED
43	FC 291	C	563.40	568.10	4.70	SS	CAS LIT GRY		0	CORED
44	FC 291	C	568.10	571.10	3.00	SH	CAS HRD		0	CORED
45	FC 291	C	571.10	573.00	1.90	SS	CAS		0	CORED
46	FC 291	C	573.00	575.00	2.00	SH	CRB CAS		0	CORED
47	FC 291	C	575.00	576.20	1.20	CO		G	0	CORED
48	FC 291	C	576.20	576.30	.10	SS	CAS LIT GRY	G	0	CORED
49	FC 291	C	576.30	582.80	6.50	CO		G	0	CORED
50	FC 291	C	582.80	583.75	.95	ST	CAS		0	CORED
51	FC 291	C	583.75	585.00	1.25	SS	CAS		0	CORED
52	FC 291	C	585.00	586.25	1.25	ST	HRD		0	CORED
53	FC 291	C	586.25	588.15	1.90	SH	CR BSF T		0	CORED
54	FC 291	C	588.15	601.00	12.85	SS	CAS HRD		0	CORED
55	FC 291	C	601.00	605.00	4.00	SS	LIT GRY		0	CORED
56	FC 291	C	605.00	611.00	6.00	SH	MED HRD		0	CORED
57	FC 291	C	611.00	616.95	5.95	SS	MED HRD		0	CORED
58	FC 291	C	616.95	620.70	3.75	CO		D	0	CORED
59	FC 291	C	620.70	622.00	1.30	SH	SFT LIT GRY		0	CORED
60	FC 291	C	622.00	628.10	6.10	CO		C	0	CORED
61	FC 291	C	628.10	629.00	.90	ST	HRD CRB		0	CORED
62	FC 291	C	629.00	629.25	.25	SH	SDY SFT		0	CORED
63	FC 291	C	629.25	629.55	.30	CO			0	CORED
64	FC 291	C	629.55	631.00	1.45	SH	SFT		0	CORED
65	FC 291	C	631.00	632.60	1.60	SH	SLY		0	CORED
66	FC 291	C	632.60	633.15	.55	CO			0	CORED
67	FC 291	C	633.15	651.00	17.85	SS	CAS GRY		0	CORED
68	FC 291	C	651.00	656.00	5.00	SH	MED HRD		0	CORED
69	FC 291	C	656.00	661.00	5.00	SS	CAS LIT GRY HRD		0	CORED
70	FC 291	C	661.00	665.00	4.00	SS	SHY		0	CORED
71	FC 291	C	665.00	671.00	6.00	SS	CAS LIT GRY HRD		0	CORED
72	FC 291	C	671.00	682.70	11.70	ST	CAS HRD		0	CORED
73	FC 291	C	682.70	684.00	1.30	CO		A	0	CORED
74	FC 291	C	684.00	685.30	1.30	SH	CAS CRB		0	CORED
75	FC 291	C	685.30	701.00	15.70	ST	CAS SDY HRD BH		0	CORED

			SEAM CODE	SAMP NO	SAMPLE DEPTH FROM	SAMPLE DEPTH TO	ANALYSIS CODE	PROXIMATE ANALYSIS %MOIS	%VOL	%CARB	%ASH	%SUL	BTU	EQUIL. MOIST	F P
1	FC 291	D		1	457.00	458.00	1	2.3	.0	.0	77.4	3.39	2115	.00	F
2	FC 291	D		2	457.00	458.00	2	.0	.0	.0	79.2	3.47	2164	.00	F
3	FC 291	D		3	469.70	470.35	1	2.8	.0	.0	58.3	.45	3577	.00	F
4	FC 291	D		4	469.70	470.35	2	.0	.0	.0	60.0	.46	3681	.00	F
5	FC 291	D		5	478.70	479.70	1	5.0	.0	.0	78.6	.74	1859	.00	F
6	FC 291	D		6	478.70	479.70	2	.0	.0	.0	82.7	.78	1956	.00	F

			SEAM CODE	SAMP NO	SP GR	TYPE CODE	FLOAT SINK DATA % WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE

			SEAM CODE	SAMP NO	SP GR	TYPE CODE	FLOAT SINK DATA % WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE

1	FC 291	G	I	1	0001601	DF	7834	.00	12.17	1.79	0	0001
2	FC 291	G	I	2	0001601	DF	6473	.00	12.04	.51	0	0001
3	FC 291	G	I	3	0001601	DF	9830	.00	7.04	.50	0	0001
4	FC 291	G	I	4	0001601	DF	9932	.00	4.96	.66	0	0001
5	FC 291	G	I	5	0001601	DF	9242	.00	6.29	.54	0	0001
6	FC 291	G	I	6	0001601	DF	9045	.00	6.59	.51	0	0001
7	FC 291	G	I	7	0001601	DF	9751	.00	8.19	.38	0	0001
8	FC 291	G	I	8	0001601	DF	9895	.00	6.50	.58	0	0001
9	FC 291	G	I	9	0001601	DF	9890	.00	7.88	.61	0	0001
10	FC 291	G	I	0	0001601	DS	2166	.00	63.41	5.58	0	0001
11	FC 291	G	I	1	0001601	DS	3527	.00	72.33	.21	0	0001
12	FC 291	G	I	2	0001601	DS	0170	.00	41.22	.81	0	0001
13	FC 291	G	I	3	0001601	DS	0068	.00	38.27	.65	0	0001
14	FC 291	G	I	4	0001601	DS	0758	.00	49.16	7.57	0	0001
15	FC 291	G	I	5	0001601	DS	0955	.00	52.09	.99	0	0001
16	FC 291	G	I	6	0001601	DS	0249	.00	56.27	.26	0	0001
17	FC 291	G	I	7	0001601	DS	0105	.00	35.01	.71	0	0001
18	FC 291	G	I	8	0001601	DS	0110	.00	62.02	.69	0	0001

SEQ NO = 1 DRILL HOLE NO = FC 294 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 32

SECTION CODE = SURFACE ELEV. = 5944.15 HOW DET. = 6

N-COORD = 192473 E-COORD = 2065364 SOURCE = 2 LOCATION = 1

THK CORED = 67.00 THK N-CORED = 205.00 USGS = SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 294 FORMAT = B PROPERTY OR FARM = DRILLER = GRIMM

DRILL CONTR = DATE DRILLED = 0574

TWP OR PLACE = COMMENTS =

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 294	C	.00	20.00	20.00	SD	BRN		0	
4	FC 294	C	20.00	20.30	.30	SH	BRN		0	
5	FC 294	C	20.30	29.00	8.70	GR			0	
6	FC 294	C	29.00	32.60	3.60	SH	BRN		0	
7	FC 294	C	32.60	126.10	93.50	SH	GRY		0	
8	FC 294	C	126.10	126.10	.00	SS		TF	0	
9	FC 294	C	126.10	152.90	26.80	SS	GRY		0	
10	FC 294	C	152.90	155.40	2.50	SH	GRY		0	
11	FC 294	C	155.40	181.40	26.00	SS	GRY		0	
12	FC 294	C	181.40	183.90	2.50	SH	GRY		0	
13	FC 294	C	183.90	198.30	14.40	SS	GRY		0	
14	FC 294	C	198.30	200.20	1.90	SH	GRY COL		0	
15	FC 294	C	200.20	205.00	4.80	SS	GRY		0	
16	FC 294	C	205.00	214.70	9.70	SS	CAS		0	CORED
17	FC 294	C	214.70	215.00	.30	ND			0	CORED
18	FC 294	C	215.00	225.00	10.00	SS	LIT GRY HRD		0	CORED
19	FC 294	C	225.00	227.50	2.50	SS	CAS HRD		0	CORED
20	FC 294	C	227.50	231.00	3.50	SH	GRY SDY		0	CORED
21	FC 294	C	231.00	232.00	1.00	SS	LIT GRY HRD		0	CORED
22	FC 294	C	232.00	233.00	1.00	SH	GRY SDY		0	CORED
23	FC 294	C	233.00	234.65	1.65	SS	LIT GRY HRD		0	CORED
24	FC 294	C	234.65	235.00	.35	SS			0	CORED
25	FC 294	C	235.00	236.70	1.70	SS	CAS		0	CORED
26	FC 294	C	236.70	238.20	1.50	SH	CRB SFT		0	CORED
27	FC 294	C	238.20	239.00	.80	CO		J	0	
28	FC 294	C	239.00	239.20	.20	SH	CRB SFT		0	CORED
29	FC 294	C	239.20	240.30	1.10	CS	SFT		0	CORED
30	FC 294	C	240.30	240.60	.30	SH	CRB SFT		0	CORED
31	FC 294	C	240.60	241.60	1.00	BO			0	CORED
32	FC 294	C	241.60	242.00	.40	CO		UI	0	CORED
33	FC 294	C	242.00	248.70	6.70	CO		UI	0	
34	FC 294	C	248.70	249.90	1.20	SH			0	
35	FC 294	C	249.90	256.20	6.30	CO		LI	1	
36	FC 294	C	256.20	256.50	.30	BO			0	CORED

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
37	FC 294	C	256.50	257.30	.80	BO			0	CORED
38	FC 294	C	257.30	257.70	.40	BO			0	CORED
39	FC 294	C	257.70	261.10	3.40	CO		LI	5	CORED
40	FC 294	C	261.10	262.00	.90	SS	CRB		0	CORED
41	FC 294	C	262.00	264.40	2.40	SS	SHY LIT GRY		0	CORED
42	FC 294	C	264.40	264.60	.20	SH	SDY DRK GRY		0	CORED
43	FC 294	C	264.60	265.20	.60	SS	HRD LIT GRY		0	CORED
44	FC 294	C	265.20	268.60	3.40	SH	DRK GRY SFT		0	CORED
45	FC 294	C	268.60	269.10	.50	SS	CAS HRD		0	CORED
46	FC 294	C	269.10	271.60	2.50	SH	DRK GRY SFT		0	CORED
47	FC 294	C	271.60	272.00	.40		BH		0	CORED

			SEAM CODE	SAMP NO	SAMPLE DEPTH FROM	SAMPLE DEPTH TO	ANALYSIS CODE	PROXIMATE ANALYSIS %MOIS	%VOL	%CARB	%ASH	%SUL	BTU	EQUIL. MOIST	F P
1	FC 294	D	IJ	1	236.70	239.00	1	3.3	.0	.0	52.8	1.93	5859	.00	F
2	FC 294	D	IJ	1	236.70	239.00	2	.0	.0	.0	54.6	2.00	6058	.00	F
3	FC 294	D	IJ	2	239.00	240.30	1	7.7	.0	.0	80.2	1.43	539	.00	F
4	FC 294	D	IJ	2	239.00	240.30	2	.0	.0	.0	86.8	1.55	584	.00	F
5	FC 294	D		3	261.10	262.00	1	1.4	.0	.0	90.8	.07	779	.00	F
6	FC 294	D		3	261.10	262.00	3	.0	.0	.0	92.1	.07	790	.00	F

			SEAM CODE	SAMP NO	SP GR	TYPE CODE	FLOAT SINK DATA % WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE
1	FC 294	G	IJ	1	000160	DF	8474	.00	8.62	1.20	0	0001
2	FC 294	G	IJ	2	000160	DF	9954	.00	5.44	1.33	0	0001
3	FC 294	G	IJ	3	000160	DF	9828	.00	7.85	1.27	0	0001
4	FC 294	G	IJ	4	000160	DF	9766	.00	8.12	1.44	0	0001
5	FC 294	G	IJ	5	000160	DF	8368	.00	9.35	.90	0	0001
6	FC 294	G	IJ	6	000160	DF	9850	.00	5.39	1.00	0	0001
7	FC 294	G	IJ	7	000160	DF	9804	.00	8.06	.59	0	0001
8	FC 294	G	IJ	8	000160	DF	9942	.00	7.47	.68	0	0001
9	FC 294	G	IJ	9	000160	DF	5584	.00	12.57	1.55	0	0001
10	FC 294	G	IJ	0	000160	DF	9894	.00	8.08	1.93	0	0001
11	FC 294	G	IJ	1	000160	DF	9962	.00	6.32	.85	0	0001
12	FC 294	G	IJ	2	000160	DS	1526	.00	66.58	1.15	0	0001
13	FC 294	G	IJ	3	000160	DS	0046	.00	40.62	3.77	0	0001
14	FC 294	G	IJ	4	000160	DS	0172	.00	36.98	12.49	0	0001
15	FC 294	G	IJ	5	000160	DS	0234	.00	46.34	1.19	0	0001
16	FC 294	G	IJ	6	000160	DS	1632	.00	64.50	1.03	0	0001
17	FC 294	G	IJ	7	000160	DS	0150	.00	54.71	2.36	0	0001
18	FC 294	G	IJ	8	000160	DS	0196	.00	45.80	3.72	0	0001
19	FC 294	G	IJ	9	000160	DS	0058	.00	26.47	.52	0	0001
20	FC 294	G	IJ	0	000160	DS	4416	.00	64.55	2.28	0	0001
21	FC 294	G	IJ	1	000160	DS	0106	.00	37.54	4.32	0	0001
22	FC 294	G	IJ	2	000160	DS	0038	.00	41.88	1.68	0	0001

SEQ NO = 1 DRILL HOLE NO = FC 295 FORMAT = A STATE = 43 COUNTY = 015 TWP = 23S RANGE = 6E SECTION = 04

SECTION CODE = SURFACE ELEV. = 6136.33 HOW DET. = 6

N-COORD = 188021 E-COORD = 2068464 SOURCE = 2 LOCATION = 1

THK CORED = 311.50 THK N-CORED = 19.50 USGS = SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 295 FORMAT = B PROPERTY OR FARM = DRILLER = KRUG

DRILL CONTR = DATE DRILLED = 0574

TWP OR PLACE = COMMENTS =

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 295	C	.00	19.50	19.50	SM			0	
4	FC 295	C	19.50	20.25	.75	SH	GRY SLY SDY		0	CORED
5	FC 295	C	20.25	32.10	11.85	SS	WHT CAS		0	CORED
6	FC 295	C	32.10	58.05	25.95	SS	CAS WHT		0	CORED
7	FC 295	C	58.05	58.40	.35	SH	DRK GRY CLY		0	CORED
8	FC 295	C	58.40	79.95	21.55	SS	WHT		0	CORED
9	FC 295	C	79.95	84.40	4.45	SH	DRK GRY CRB		0	CORED
10	FC 295	C	84.40	88.85	4.45	SS	WHT		0	CORED
11	FC 295	C	88.85	89.10	.25	SH	DRK GRY CLY		0	CORED
12	FC 295	C	89.10	91.00	1.90	SS	WHT CAS		0	CORED
13	FC 295	C	91.00	106.25	15.25	SS	CAS LIT GRY		0	CORED
14	FC 295	C	106.25	111.20	4.95	CO		UI	0	CORED
15	FC 295	C	111.20	113.80	2.60	ST	LIT GRY HRD		0	CORED
16	FC 295	C	113.80	115.60	1.80	SS	GRY HRD		0	CORED
17	FC 295	C	115.60	121.00	5.40	SS	SHY LIT GRY		0	CORED
18	FC 295	C	121.00	147.20	26.20	SS	CAS GRY HRD		0	CORED
19	FC 295	C	147.20	149.00	1.80	SS	SHY		0	CORED
20	FC 295	C	149.00	150.90	1.90	CO		LI	1	CORED
21	FC 295	C	150.90	151.00	.10	CO		LI	1	CORED
22	FC 295	C	151.00	155.00	4.00	CO		LI	1	CORED
24	FC 295	C	155.00	160.80	5.80	CO		LI	5	CORED
25	FC 295	C	160.80	161.00	.20	BO			0	CORED
26	FC 295	C	161.00	161.30	.30	SH	CRB COL		0	CORED
27	FC 295	C	161.30	161.65	.35	ST	GRY HRD		0	CORED
28	FC 295	C	161.65	171.00	9.35	SS	LIT GRY HRD		0	CORED
29	FC 295	C	171.00	181.00	10.00	SS	WHT CAS		0	CORED
30	FC 295	C	181.00	204.75	23.75	SS	LIT GRY CAS HRD		0	CORED
31	FC 295	C	204.75	205.10	.35	SH	DRK		0	CORED
32	FC 295	C	205.10	207.35	2.25	SH	SDY LIT GRY		0	CORED
33	FC 295	C	207.35	209.15	1.80	SS	CAS		0	CORED
34	FC 295	C	209.15	209.25	.10	CO			0	CORED RIDER
35	FC 295	C	209.25	221.00	11.75	SS	CAS CLY		0	CORED
36	FC 295	C	221.00	227.00	6.00	SH	LIT GRY		0	CORED
37	FC 295	C	227.00	229.00	2.00	CO			0	CORED

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
38	FC 295	C	229.00	231.00	2.00	SH	LIT GRY COL		0	CORED
39	FC 295	C	231.00	232.15	1.15	ST	SDY GRY CAS		0	CORED
40	FC 295	C	232.15	232.70	.55	SH	CAS GRY		0	CORED
41	FC 295	C	232.70	233.50	.80	SH	CAS CRB COL		0	CORED
42	FC 295	C	233.50	234.00	.50	CO		G	0	CORED
43	FC 295	C	234.00	234.20	.20	ST	GRY	G	0	CORED
44	FC 295	C	234.20	238.40	4.20	CO		G	0	CORED
45	FC 295	C	238.40	239.90	1.50	SH	GRY		0	CORED
46	FC 295	C	239.90	241.00	1.10	ST	GRY SDY HRD		0	CORED
47	FC 295	C	241.00	246.70	5.70	ST	GRY SDY HRD		0	CORED
48	FC 295	C	246.70	247.90	1.20	CO			0	CORED RIDER
49	FC 295	C	247.90	252.50	4.60	SH	DRK GRY		0	CORED
50	FC 295	C	252.50	253.70	1.20	SH	SLY		0	CORED
51	FC 295	C	253.70	257.00	3.30	SH	LIT GRY CAS		0	CORED
52	FC 295	C	257.00	259.35	2.35	SH	BLK CRB		0	CORED
53	FC 295	C	259.35	260.95	1.60	SS			0	CORED
54	FC 295	C	260.95	261.30	.35	SH	DRK BLK CRB		0	CORED
55	FC 295	C	261.30	265.50	4.20	CO		D	0	CORED
56	FC 295	C	265.50	266.00	.50	SH	BNY		0	CORED
57	FC 295	C	266.00	267.05	1.05	SH	SDY LIT GRY		0	CORED
58	FC 295	C	267.05	271.85	4.80	CO		C	0	CORED
59	FC 295	C	271.85	272.35	.50	BO		C	0	CORED
60	FC 295	C	272.35	273.95	1.60	CO		C	0	CORED
61	FC 295	C	273.95	275.00	1.05	SH	GRY		0	CORED
62	FC 295	C	275.00	281.00	6.00	SH	LIT GRY CRB		0	CORED
63	FC 295	C	281.00	285.00	4.00	SH	BLK COL		0	CORED
64	FC 295	C	285.00	291.00	6.00	ST	LIT GRY		0	CORED
65	FC 295	C	291.00	307.30	16.30	SS	LIT GRY CAS		0	CORED
66	FC 295	C	307.30	307.60	.30	SH	GRY COL		0	CORED
67	FC 295	C	307.60	312.35	4.75	SS	LIT GRY SLY COL		0	CORED
68	FC 295	C	312.35	314.40	2.05	CO		A	0	CORED
69	FC 295	C	314.40	314.80	.40	BO		A	0	CORED
70	FC 295	C	314.80	316.20	1.40	SH	DRK GRY COL		0	CORED
71	FC 295	C	316.20	321.00	4.80	SS			0	CORED
72	FC 295	C	321.00	322.75	1.75	SS	LIT GRY COL		0	CORED
73	FC 295	C	322.75	322.85	.10	CO			0	CORED RIDER
74	FC 295	C	322.85	331.00	8.15	SS	LIT GRY BH		0	CORED

SEQ NO = 1 DRILL HOLE NO = FC 296 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 32

SECTION CODE = SURFACE ELEV. = 6009.08 HOW DET. = 6

N-COORD = 189563 E-COORD = 2066716 SOURCE = 2 LOCATION = 1

THK CORED = 360.00 THK N-CORED = 21.00 USGS = SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 296 FORMAT = B PROPERTY OR FARM = DRILLER = GORDON

DRILL CONTR = DATE DRILLED = 0574

TWP OR PLACE = COMMENTS =

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 296	C	.00	5.40	5.40	SM			0	
4	FC 296	C	5.40	21.00	15.60	SS	BRN HRD		0	
5	FC 296	C	21.00	38.00	17.00	SS	CAS WHT		0	CORED
6	FC 296	C	38.00	38.15	.15	SH	GRY SDY SLY		0	CORED
7	FC 296	C	38.15	39.35	1.20	SS	CAS WHT		0	CORED
8	FC 296	C	39.35	41.00	1.65	SS	CAS WHT		0	CORED
9	FC 296	C	41.00	58.10	17.10	SS	LIT GRY HRD		0	CORED
10	FC 296	C	58.10	58.30	.20	SH	LIT GRY CLY		0	CORED
11	FC 296	C	58.30	61.00	2.70	SS	CAS GRY		0	CORED
12	FC 296	C	61.00	91.00	30.00	SS	LIT GRY CAS		0	CORED
13	FC 296	C	91.00	98.90	7.90	SS	GRY HRD		0	CORED
14	FC 296	C	98.90	100.00	1.10	SH	CRB BNY		0	CORED
15	FC 296	C	100.00	101.40	1.40	ST	HRD SDY		0	CORED
16	FC 296	C	101.40	102 65	1.25	SH	DRK GRY CLY		0	CORED
17	FC 296	C	102.65	102 90	.25	SH	CRB		0	CORED
18	FC 296	C	102.90	104 05	1.15	CO		J	0	
19	FC 296	C	104.05	104.15	.10	SH	CRB BNY		0	CORED
20	FC 296	C	104.15	104.95	.80	SH	GRY SFT		0	CORED
21	FC 296	C	104.95	105.25	.30	ST	SHY		0	CORED
22	FC 296	C	105.25	110.35	5.10	CO		UI	0	CORED
23	FC 296	C	110.35	110.70	.35	SH	CRB COL		0	CORED
24	FC 296	C	110.70	111.00	.30	SH	GRY SLY		0	CORED
25	FC 296	C	111.00	111.10	.10	SH	CLY GRY		0	CORED
26	FC 296	C	111.10	112 25	1.15	SH	BRN CLY		0	CORED
27	FC 296	C	112.25	115 35	3.10	SH	GRY CLY		0	CORED
28	FC 296	C	115.35	121.00	5.65	ST	LIT GRY SDY		0	CORED
29	FC 296	C	121.00	123.00	2.00	SS	GRY HRD		0	CORED
30	FC 296	C	123.00	126.70	3.70	ST	SDY		0	CORED
31	FC 296	C	126.70	128.20	1.50	SS	GRY HRD		0	CORED
32	FC 296	C	128.20	131.00	2.80	ST	SDY		0	CORED
33	FC 296	C	131.00	134.65	3.65	SS	GRY CAS		0	CORED
34	FC 296	C	134.65	136.90	2.25	SH	DRK GRY CRB		0	CORED
35	FC 296	C	136.90	137.40	.50	SH	CRB COL		0	CORED
36	FC 296	C	137.40	143.15	5.75	CO		LI	0	CORED

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
37	FC 296	C	143.15	143.60	.45	BO	COL	LI	0	CORED
38	FC 296	C	143.60	149.15	5.55	CO		LI	0	CORED
39	FC 296	C	149.15	149.50	.35	ST	BRN SDY		0	CORED
40	FC 296	C	149.50	150.10	.60	CL	LIT BRN SFT		0	CORED
41	FC 296	C	150.10	150.70	.60	ST	SHY		0	CORED
42	FC 296	C	150.70	151.00	.30	SS	WHT HRD		0	CORED
43	FC 296	C	151.00	151.40	.40	ST	LIT GRY HRD		0	CORED
44	FC 296	C	151.40	153.65	2.25	SS	LIT GRY HRD		0	CORED
45	FC 296	C	153.65	154.75	1.10	ST	HRD		0	CORED
46	FC 296	C	154.75	157.05	2.30	SS	LIT GRY HRD		0	CORED
47	FC 296	C	157.05	157.60	.55	ST	GRY HRD		0	CORED
48	FC 296	C	157.60	158.25	.65	SS	WHT HRD		0	CORED
49	FC 296	C	158.25	158.45	.20	ST	SHY HRD		0	CORED
50	FC 296	C	158.45	171.00	12.55	SS	LIT GRY HRD		0	CORED
51	FC 296	C	171.00	181.00	10.00	SS	LIT GRY HRD CAS		0	CORED
52	FC 296	C	181.00	187.60	6.60	SS	DRK GRY HRD SHY		0	CORED
53	FC 296	C	187.60	191.65	4.05	SH	CAS SDY		0	CORED
54	FC 296	C	191.65	194.25	2.60	SS	CAS DRK GRY HRD		0	CORED
55	FC 296	C	194.25	200.15	5.90	SH	CAS SDY		0	CORED
56	FC 296	C	200.15	202.40	2.25	SS	CAS DRK GRY HRD		0	CORED
57	FC 296	C	202.40	204.00	1.60	SH	CRB		0	CORED
58	FC 296	C	204.00	204.40	.40	CI	BNY	G	0	CORED
59	FC 296	C	204.40	204.60	.20	ST	HRD	G	0	CORED
60	FC 296	C	204.60	205.00	.40	CO	BNY	G	0	CORED
61	FC 296	C	205.00	208.50	3.50	CO		G	0	CORED
62	FC 296	C	208.50	209.00	.50	CL	CAS CRB SFT		0	CORED
63	FC 296	C	209.00	211.85	2.85	SH	SFT CLY		0	CORED
64	FC 296	C	211.85	212.80	.95	SH	SDY		0	CORED
65	FC 296	C	212.80	213.50	.70	ST	LIT GRY HRD		0	CORED
66	FC 296	C	213.50	213.80	.30	SS	CAS HRD		0	CORED
67	FC 296	C	213.80	214.95	1.15	ST	LIT GRY SDY		0	CORED
68	FC 296	C	214.95	215.30	.35	SS	CAS HRD		0	CORED
69	FC 296	C	215.30	216.35	1.05	ST	LIT GRY SDY		0	CORED
70	FC 296	C	216.35	217.45	1.10	SH	SDY CAS		0	CORED
71	FC 296	C	217.45	219.35	1.90	ST	LIT GRY SDY		0	CORED
72	FC 296	C	219.35	221.15	1.80	SS	CAS HRD		0	CORED
73	FC 296	C	221.15	221.50	.35	SH	DRK GRY CAS SDY		0	CORED
74	FC 296	C	221.50	225.75	4.25	SS	CAS HRD		0	CORED
75	FC 296	C	225.75	230.30	4.55	ST	CAS HRD		0	CORED
76	FC 296	C	230.30	240.10	9.80	SS	GRY CAS HRD		0	CORED
77	FC 296	C	240.10	240.80	.70	SH	CRB CLY		0	CORED
78	FC 296	C	240.80	241.65	.85	ST	HRD GRY		0	CORED
79	FC 296	C	241.65	244.90	3.25	SS	CAS		0	CORED
80	FC 296	C	244.90	245.75	.85	ST	CAS HRD		0	CORED
81	FC 296	C	245.75	247.40	1.65	SH	GRY		0	CORED
82	FC 296	C	247.40	249.55	2.15	ST	CAS GRY		0	CORED
83	FC 296	C	249.55	250.90	1.35	SH	CAS GRY		0	CORED
84	FC 296	C	250.90	251.00	.10	SS	CAS HRD		0	CORED
85	FC 296	C	251.00	257.50	6.50	ST	CAS HRD		0	CORED
86	FC 296	C	257.50	258.90	1.40	SH	SLY CLY		0	CORED
87	FC 296	C	258.90	259.10	.20	SS	LIT GRY CAS		0	CORED

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
88	FC 296	C	259.10	261.00	1.90	SH	SLY CLY		0	CORED
89	FC 296	C	261.00	264.40	3.40	SH	DRK GRY SLY		0	CORED
90	FC 296	C	264.40	265.85	1.45	ST	CAS HRD		0	CORED
91	FC 296	C	265.85	267.75	1.90	SH	DRK GRY SLY		0	CORED
92	FC 296	C	267.75	269.00	1.25	SS	LIT GRY CAS		0	CORED
93	FC 296	C	269.00	269.55	.55	SH	CRB CLY SFT		0	CORED
94	FC 296	C	269.55	269.70	.15	SS	LIT GRY CAS		0	CORED
95	FC 296	C	269.70	270.30	.60	CO		D	0	CORED
96	FC 296	C	270.30	270.45	.15	SH	CRB BNY		0	CORED
97	FC 296	C	270.45	270.60	.15	SH	BRN CRB CLY		0	CORED
98	FC 296	C	270.60	271.00	.40	SH	CRB		0	CORED
99	FC 296	C	271.00	271.85	.85	SH	CLY SFT		0	CORED
100	FC 296	C	271.85	278.70	6.85	CO		C	0	CORED
101	FC 296	C	278.70	279.00	.30	SH	CRB COL		0	CORED
102	FC 296	C	279.00	281.00	2.00	SH	CLY SFT		0	CORED
103	FC 296	C	281.00	285.00	4.00	SH	DRK GRY MED HRD		0	CORED
104	FC 296	C	285.00	287.00	2.00	SH	DRK GRY SDY		0	CORED
105	FC 296	C	287.00	291.00	4.00	SS	LIT GRY CAS HRD		0	CORED
106	FC 296	C	291.00	303.00	12.00	SH	CAS SDY HRD		0	CORED
107	FC 296	C	303.00	311.00	8.00	SS	CAS HRD		0	CORED
108	FC 296	C	311.00	341.00	30.00	SH	CAS SDY HRD		0	CORED
109	FC 296	C	341.00	349.90	8.90	SS	CAS HRD		0	CORED
110	FC 296	C	349.90	350.20	.30	CO			0	CORED RIDER
111	FC 296	C	350.20	361.00	10.80	SS	CAS HRD		0	CORED
112	FC 296	C	361.00	371.00	10.00	SS	LIT GRY HRD		0	CORED
113	FC 296	C	371.00	381.00	10.00	SS	CAS LIT GRY BH		0	CORED

SEQ NO = 1 DRILL HOLE NO = FC 297 FORMAT = A STATE = 43 COUNTY = 015 TWP = 23S RANGE = 6E SECTION = 05

SECTION CODE = SURFACE ELEV. = 6036.97 HOW DET. = 6

N-COORD = 186306 E-COORD = 2064664 SOURCE = 2 LOCATION = 1

THK CORED = 313.00 THK N-CORED = 39.00 USGS = WALKER FLAT SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 297 FORMAT = B PROPERTY OR FARM = DRILLER = ANDERSON

DRILL CONTR = DATE DRILLED = 0574

TWP OR PLACE = STRIP 2 COMMENTS =

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 297	C	.00	10.00	10.00	SS	BRN		0	
4	FC 297	C	10.00	14.00	4.00	SH	GRY SNY		0	
5	FC 297	C	14.00	39.00	25.00	SS	BRN		0	
6	FC 297	C	39.00	42.00	3.00	SS	CAS LIT GRY HRD		0	CORED
7	FC 297	C	42.00	50.70	8.70	SS	CAS HRD		0	CORED
8	FC 297	C	50.70	51.10	.40	CO			0	CORED RIDER
9	FC 297	C	51.10	62.00	10.90	SS	CAS HRD		0	CORED
10	FC 297	C	62.00	72.00	10.00	SS	SLY HRD		0	CORED
11	FC 297	C	72.00	92.00	20.00	SS	LIT GRY HRD		0	CORED
12	FC 297	C	92.00	99.20	7.20	SS	CAS HRD		0	CORED
13	FC 297	C	99.20	102.00	2.80	SH	DRK GRY SDY		0	CORED
14	FC 297	C	102.00	104.00	2.00	SS	CAS LIT GRY		0	CORED
15	FC 297	C	104.00	107.20	3.20	SH	DRK GRY MED HRD		0	CORED
17	FC 297	C	107.20	108.00	.80	BO			0	CORED
18	FC 297	C	108.00	108.30	.30	SH	SRB SOL		0	CORED
19	FC 297	C	108.30	109.50	1.20	SH	HRD SDY		0	CORED
20	FC 297	C	109.50	110.80	1.30	SS	LIT GRY HRD		0	CORED
21	FC 297	C	110.80	112.00	1.20	SH	DRK GRY MED HRD		0	CORED
22	FC 297	C	112.00	115.90	3.90	SH	SFT CLY		0	CORED
23	FC 297	C	115.90	120.00	4.10	SS	LIT GRY HRD		0	CORED
24	FC 297	C	120.00	120.20	.20	SS	LIT GRY HRD COL		0	CORED
25	FC 297	C	120.20	121.75	1.55	CO		J	0	CORED
26	FC 297	C	121.75	122.00	.25	SH	CRB MED HRD		0	CORED
27	FC 297	C	122.00	123.00	1.00	SH	CLY SFT		0	CORED
28	FC 297	C	123.00	123.20	.20	SH	CRB COL		0	CORED
29	FC 297	C	123.20	128.20	5.00	CO		UI	0	CORED
30	FC 297	C	128.20	132.00	3.80	SH	SFT		0	CORED
31	FC 297	C	132.00	142.00	10.00	ST	SHY HRD		0	CORED
32	FC 297	C	142.00	152.00	10.00	SS	DRK GRY HRD		0	CORED
33	FC 297	C	152.00	162.00	10.00	SS	GRY HRD		0	CORED
34	FC 297	C	162.00	176.30	14.30	SS	LIT GRY HRD		0	CORED
35	FC 297	C	176.30	178.20	1.90	CO		LI	1	CORED
36	FC 297	C	178.20	178.90	.70	BO	SHY	LI	1	CORED
37	FC 297	C	178.90	182.95	4.05	CO		LI	1	CORED

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
38	FC 297	C	182.95	183.40	.45	SH	BNY		0	CORED
39	FC 297	C	183.40	187.15	3.75	ST	BRN HRD		0	CORED
40	FC 297	C	187.15	196.40	9.25	SS	GRY HRD		0	CORED
41	FC 297	C	196.40	198.20	1.80	CO		LI	5	CORED
42	FC 297	C	198.20	198.35	.15	ST	COL CRB		0	CORED
43	FC 297	C	198.35	200.00	1.65	ST	LIT GRY SDY		0	CORED
44	FC 297	C	200.00	204.50	4.50	SS	SLY HRD		0	CORED
45	FC 297	C	204.50	212.00	7.50	SH	DRK GRY MED HRD		0	CORED
46	FC 297	C	212.00	222.00	10.00	SH	DRK GRY SDY		0	CORED
47	FC 297	C	222.00	222.30	.30	SH	CAS SLY SDY		0	CORED
48	FC 297	C	222.30	223.85	1.55	ST	LIT GRY SDY CAS		0	CORED
49	FC 297	C	223.85	225.35	1.50	SH	SDY CLY		0	CORED
50	FC 297	C	225.35	228.25	2.90	SH	CLY SFT		0	CORED
51	FC 297	C	228.25	229.05	.80	ST	CLY MED HRD		0	CORED
52	FC 297	C	229.05	232.00	2.95	SS	CAS HRD		0	CORED
53	FC 297	C	232.00	234.50	2.50	ST	LIT GRY CAS		0	CORED
54	FC 297	C	234.50	235.65	1.15	SH	CRB DRK GRY		0	CORED
55	FC 297	C	235.65	235.75	.10	CO			0	CORED RIDER
56	FC 297	C	235.75	239.60	3.85	ST	GRY CLY		0	CORED
57	FC 297	C	239.60	240.10	.50	SH	GRY MED HRD		0	CORED
58	FC 297	C	240.10	240.55	.45	ST	GRY HRD CLY		0	CORED
59	FC 297	C	240.55	242.00	1.45	SH	DRK GRY CAS CRB		0	CORED
60	FC 297	C	242.00	243.90	1.90	SH	CAS SLY		0	CORED
61	FC 297	C	243.90	247.20	3.30	ST	HRD CAS		0	CORED
62	FC 297	C	247.20	248.00	.80	SH	DRK GRY CAS		0	CORED
63	FC 297	C	248.00	250.00	2.00	SH	CRB BLK		0	CORED
64	FC 297	C	250.00	252.10	2.10	SH	GRY		0	CORED
65	FC 297	C	252.10	252.85	.75	ST	SHY		0	CORED
66	FC 297	C	252.85	253.15	.30	SH	DRK GRY MED HRD		0	CORED
67	FC 297	C	253.15	254.55	1.40	ST	GRY HRD		0	CORED
68	FC 297	C	254.55	254.85	.30	SH	DRK GRY		0	CORED
69	FC 297	C	254.85	256.00	1.15	ST	SLY		0	CORED
70	FC 297	C	256.00	257.55	1.55	SH	DRK GRY HRD		0	CORED
71	FC 297	C	257.55	258.50	.95	SH	CRB COL		0	CORED
72	FC 297	C	258.50	259.20	.70	CO		G	0	CORED
73	FC 297	C	259.20	259.35	.15	ST	LIT BRN COL	G	0	CORED
74	FC 297	C	259.35	260.00	.65	CO		G	0	CORED
75	FC 297	C	260.00	261.85	1.85	BO	COL	G	0	
76	FC 297	C	261.85	261.95	.10	BO		G	0	CORED
77	FC 297	C	261.95	262.00	.05	BO		G	0	CORED LOSS
78	FC 297	C	262.00	262.90	.90	BO		G	0	CORED
79	FC 297	C	262.90	264.45	1.55	CO		G	0	CORED
80	FC 297	C	264.45	264.70	.25	SH	CRB COL		0	CORED
81	FC 297	C	264.70	268.00	3.30	SH	DRK GRY SFT		0	CORED
82	FC 297	C	268.00	270.00	2.00	ST	DRK GRY CAS HRD		0	CORED
83	FC 297	C	270.00	272.00	2.00	SH	SDY		0	CORED
84	FC 297	C	272.00	274.50	2.50	SH	SDY HRD		0	CORED
85	FC 297	C	274.50	275.05	.55	SS	GRY CAS HRD		0	CORED
86	FC 297	C	275.05	277.25	2.20	SH	SDY HRD		0	CORED
87	FC 297	C	277.25	277.50	.25	SS	GRY CAS HRD		0	CORED
88	FC 297	C	277.50	281.00	3.50	SH	SDY SLY		0	CORED

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
89	FC 297	C	281.00	281.70	.70	SS	LIT GRY CAS		0	CORED
90	FC 297	C	281.70	282.00	.30	SH	CAS SDY SLY		0	CORED
91	FC 297	C	282.00	282.70	.70	SH	CAS SDY		0	CORED
92	FC 297	C	282.70	283.10	.40	SH	CRB CLY		0	CORED
93	FC 297	C	283.10	284.20	1.10	SH	CAS SDY		0	CORED
94	FC 297	C	284.20	292.00	7.80	ST	LIT GRY HRD		0	CORED
95	FC 297	C	292.00	296.80	4.80	ST	BRN HRD CAS		0	CORED
96	FC 297	C	296.80	298.95	2.15	SH	CRB DRK BRN		0	CORED
97	FC 297	C	298.95	300.55	1.60	SS	COL		0	CORED
98	FC 297	C	300.55	304.00	3.45	CO		D	0	CORED
99	FC 297	C	304.00	304.20	.20	SH	DRK BRN MED HRD		0	CORED
100	FC 297	C	304.20	305.35	1.15	MD	BRN SFT CLY		0	CORED
101	FC 297	C	305.35	307.35	2.00	CO		C	0	CORED
102	FC 297	C	307.35	307.45	.10	ST	BRN COL	C	0	CORED
103	FC 297	C	307.45	310.20	2.75	CO		C	0	CORED
104	FC 297	C	310.20	310.60	.40	ST	COL	C	0	CORED
105	FC 297	C	310.60	311.95	1.35	CO		C	0	CORED
106	FC 297	C	311.95	313.10	1.15	SH	DRK GRY MED HRD		0	CORED
107	FC 297	C	313.10	316.00	2.90	SS	CAS LIT GRY HRD		0	CORED
108	FC 297	C	316.00	317.00	1.00	SH	DRK GRY MED HRD		0	CORED
109	FC 297	C	317.00	326.50	9.50	SS	CAS LIT GRY HRD		0	CORED
110	FC 297	C	326.50	332.00	5.50	SH	CAS HRD SDY		0	CORED
111	FC 297	C	332.00	332.10	.10	SH	CRB COL		0	CORED
112	FC 297	C	332.10	332.60	.50	CO		A	0	CORED
113	FC 297	C	332.60	333.20	.60	SH	CRB COL SFT	A	0	CORED
114	FC 297	C	333.20	334.00	.80	CO		A	0	CORED
115	FC 297	C	334.00	334.75	.75	SH	CRB COL	A	0	CORED
116	FC 297	C	334.75	335.15	.40	CO		A	0	CORED
117	FC 297	C	335.15	335.45	.30	ST	SHY CLY SFT	A	0	CORED
118	FC 297	C	335.45	340.95	5.50	CO		A	0	CORED
119	FC 297	C	340.95	342.00	1.05	SS	COL HRD		0	CORED
120	FC 297	C	342.00	352.00	10.00	SS	HRD BH		0	CORED

			SEAM CODE	SAMP NO	SAMPLE DEPTH FROM	SAMPLE DEPTH TO	ANALYSIS CODE	PROXIMATE ANALYSIS %MOIS	%VOL	%CARB	%ASH	%SUL	BTU	EQUIL. MOIST	F P
1	FC 297	D	J	1	119.50	120.20	1	.6	.0	.0	89.9	.54	507	.00	
2	FC 297	D	J	1	119.50	120.20	2	.0	.0	.0	90.5	.54	510	.00	F
3	FC 297	D	J	2	121.75	123.20	1	11.1	.0	.0	79.5	.42	131	.00	F
4	FC 297	D	J	2	121.75	123.20	2	.0	.0	.0	89.4	.47	147	.00	F
5	FC 297	D		3	128.20	129.00	1	2.4	.0	.0	90.4	.20	248	.00	F
6	FC 297	D		3	128.20	129.00	2	.0	.0	.0	92.8	.21	254	.00	F
7	FC 297	D		4	176.00	176.30	1	.6	.0	.0	98.2	.08	75	.00	F
8	FC 297	D		4	176.00	176.30	2	.0	.0	.0	98.8	.08	75	.00	F
9	FC 297	D	I	5	178.20	178.90	1	3.7	.0	.0	44.9	.59	6728	.00	F
10	FC 297	D	I	5	178.20	178.90	2	.0	.0	.0	46.6	.61	6983	.00	F
11	FC 297	D		6	182.95	183.40	1	3.9	.0	.0	68.1	1.10	3142	.00	F
12	FC 297	D		6	182.95	183.40	2	.0	.0	.0	70.8	1.14	3269	.00	F

			SEAM CODE	SAMP NO	SP GR	TYPE CODE	FLOAT SINK DATA % WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE

| | | | SEAM CODE | SAMP NO | SP GR | TYPE CODE | FLOAT SINK DATA % WT. | % VOL | % ASH | % SUL | BTU | SCREEN SIZE |

1	FC 297	G	J	1	0001601	DF	9482	.00	8.52	1.81	0	0001
2	FC 297	G	J	2	0001601	DF	7865	.00	7.63	1.23	0	0001
3	FC 297	G	J	3	0001601	DF	9548	.00	6.58	1.05	0	0001
4	FC 297	G	J	4	0001601	DF	9678	.00	8.13	.92	0	0001
5	FC 297	G	I	5	0001601	DF	9934	.00	8.78	.51	0	0001
6	FC 297	G	I	6	0001601	DF	9812	.00	7.89	.50	0	0001
7	FC 297	G	I	7	0001601	DF	9788	.00	5.85	.71	0	0001
8	FC 297	G	J	8	0001601	DS	0518	.00	48.82	14.79	0	0001
9	FC 297	G	J	9	0001601	DS	2135	.00	53.83	6.74	0	0001
10	FC 297	G	J	0	0001601	DS	0452	.00	36.60	19.89	0	0001
11	FC 297	G	J	1	0001601	DS	0322	.00	64.37	10.45	0	0001
12	FC 297	G	I	2	0001601	DS	0066	.00	50.42	1.31	0	0001
13	FC 297	G	I	3	0001601	DS	0188	.00	43.11	1.11	0	0001
14	FC 297	G	I	4	0001601	DS	0212	.00	42.61	.67	0	0001

SEQ NO = 1 DRILL HOLE NO = FC 298 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 32

SECTION CODE = SURFACE ELEV. = 5954.25 HOW DET. = 6

N-COORD = 190283 E-COORD = 2065045 SOURCE = 2 LOCATION = 1

THK CORED = 47.60 THK N-CORED = 162.40 USGS = SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 298 FORMAT = B PROPERTY OR FARM = DRILLER = GRIMM

DRILL CONTR = DATE DRILLED = 0574

TWP OR PLACE = COMMENTS =

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 298	C	.00	1.20	1.20	SH	BRN SDY		0	
4	FC 298	C	1.20	4.30	3.10	SG			0	
5	FC 298	C	4.30	5.50	1.20	SS	BRN		0	
6	FC 298	C	5.50	22.80	17.30	SS	GRY		0	
7	FC 298	C	22.80	29.40	6.60	SS	BRN		0	
8	FC 298	C	29.40	30.60	1.20	SH	GRY		0	
9	FC 298	C	30.60	36.00	5.40	SS	BRN		0	
10	FC 298	C	36.00	64.00	28.00	SS	GRY		0	
11	FC 298	C	64.00	93.50	29.50	SH	GRY		0	
12	FC 298	C	93.50	109.00	15.50	SS	GRY		0	
13	FC 298	C	109.00	109.45	.45	SH	CRB		0	CORED
14	FC 298	C	109.45	112.90	3.45	SH	GRY SDY		0	CORED
15	FC 298	C	112.90	113.25	.35	CO		J	0	CORED
16	FC 298	C	113.25	113.45	.20	SH	CRB COL		0	CORED
17	FC 298	C	113.45	114.20	.75	SH	CLY SDY		0	CORED
18	FC 298	C	114.20	114.45	.25	SH	CRB		0	CORED
19	FC 298	C	114.45	116.50	2.05	CO		J	0	CORED
20	FC 298	C	116.50	117.50	1.00	SH			0	CORED
21	FC 298	C	117.50	119.00	1.50	CO		UI	0	CORED
22	FC 298	C	119.00	121.60	2.60	CO		UI	0	CORED
23	FC 298	C	121.60	121.70	.10	BO		UI	0	CORED
24	FC 298	C	121.70	121.85	.15	CO		UI	0	CORED
25	FC 298	C	121.85	122.20	.35	SH	CRB COL		0	CORED
26	FC 298	C	122.20	122.45	.25	CL	DRK BRN SFT		0	CORED
27	FC 298	C	122.45	123.50	1.05	SH	CLY		0	CORED
28	FC 298	C	123.50	124.00	.50	ST	LIT GRY HRD		0	CORED
29	FC 298	C	124.00	125.00	1.00	SH			0	CORED LOSS
30	FC 298	C	125.00	126.20	1.20	SH	GRY CLY		0	CORED
31	FC 298	C	126.20	126.40	.20	SH	SDY GRY		0	CORED
32	FC 298	C	126.40	127.80	1.40	ST	LIT GRY SDY		0	CORED
33	FC 298	C	127.80	127.90	.10	SH	DRK GRY CRB		0	CORED
34	FC 298	C	127.90	129.00	1.10	SH			0	CORED
35	FC 298	C	129.00	131.45	2.45	SH	CRB SDY DRK GRY		0	CORED
36	FC 298	C	131.45	136.60	5.15	CO		LI	1	

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
37	FC 298	C	136.60	137.10	.50	CO		LI	1	CORED
38	FC 298	C	137.10	138.80	1.70	CO		LI	1	CORED
39	FC 298	C	138.80	140.10	1.30	SH	DRK GRY COL		0	CORED
40	FC 298	C	140.10	141.70	1.60	ST	LIT GRY CLY		0	CORED
41	FC 298	C	141.70	142.45	.75	SS			0	CORED
42	FC 298	C	142.45	143.05	.60	SH	DRK GRY		0	CORED
43	FC 298	C	143.05	146.20	3.15	CO		LI	5	CORED
44	FC 298	C	146.20	147.00	.80	CO		LI	5	CORED
45	FC 298	C	147.00	147.45	.45	CO		LI	5	CORED
46	FC 298	C	147.45	148.30	.85	SH	COL CRB		0	CORED
47	FC 298	C	148.30	152.00	3.70	ST	LIT GRY HRD		0	CORED
48	FC 298	C	152.00	155.20	3.20	SH	HRD SLY		0	CORED
49	FC 298	C	155.20	156.60	1.40	SH			0	CORED
50	FC 298	C	156.60	170.30	13.70	SH	GRY		0	
51	FC 298	C	170.30	172.10	1.80	SS	GRY		0	
52	FC 298	C	172.10	187.90	15.80	SH	GRY		0	
53	FC 298	C	187.90	190.00	2.10	SS	GRY		0	
54	FC 298	C	190.00	191.40	1.40	SH	GRY		0	
55	FC 298	C	191.40	196.10	4.70	CO		G	0	
56	FC 298	C	196.10	200.20	4.10	SH	GRY		0	
57	FC 298	C	200.20	210.00	9.80	SS	GRY BH		0	

			SEAM CODE	SAMP NO	SAMPLE DEPTH FROM	SAMPLE DEPTH TO	ANALYSIS CODE	PROXIMATE ANALYSIS %MOIS	%VOL	%CARB	%ASH	%SUL	BTU	EQUIL. MOIST	F P
1	FC 298	D		1	113.45	114.45	1	4.4	.0	.0	84.2	.31	152	.00	F
2	FC 298	D		1	113.45	114.45	2	.0	.0	.0	88.2	.32	159	.00	F
3	FC 298	D		2	121.85	122.20	1	3.8	.0	.0	66.0	3.37	3388	.00	F
4	FC 298	D		2	121.85	122.20	2	.0	.0	.0	68.6	3.50	3523	.00	F
5	FC 298	D		3	131.00	131.45	1	3.1	.0	.0	73.0	.30	1754	.00	F
6	FC 298	D		3	131.00	131.45	2	.0	.0	.0	75.3	.31	1810	.00	F
7	FC 298	D	I	4	138.80	143.05	1	1.8	.0	.0	92.5	.09	103	.00	F
8	FC 298	D	I	4	138.80	143.05	2	.0	.0	.0	94.2	.09	105	.00	F
9	FC 298	D		5	147.45	148.30	1	2.6	.0	.0	91.0	.04	53	.00	F
10	FC 298	D		5	147.45	148.30	2	.0	.0	.0	93.4	.04	54	.00	F

			SEAM CODE	SAMP NO	SP GR	TYPE CODE	FLOAT SINK DATA % WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE
1	FC 298	G	J	1	0001601	DF	9610	.00	5.81	1.17	0	0001
2	FC 298	G	J	2	0001601	DF	9736	.00	5.73	1.05	0	0001
3	FC 298	G	I	3	0001601	DF	9616	.00	11.94	.40	0	0001
4	FC 298	G	I	4	0001601	DF	9915	.00	7.58	.50	0	0001
5	FC 298	G	I	5	0001601	DF	9954	.00	6.87	.35	0	0001
6	FC 298	G	I	6	0001601	DF	9775	.00	6.61	.47	0	0001
7	FC 298	G	I	7	0001601	DF	9715	.00	5.72	.65	0	0001
8	FC 298	G	I	8	0001601	DF	9592	.00	5.77	1.83	0	0001
9	FC 298	G	J	9	0001601	DS	0390	.00	48.08	11.98	0	0001

FLOAT SINK DATA

			SEAM CODE	SAMP NO	SP GR	TYPE CODE	% WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE
10	FC 298	G	J	0	000160!	DS	0264	.00	48.99	4.99	0	0001
11	FC 298	G	I	1	000160!	DS	0384	.00	46.68	.28	0	0001
12	FC 298	G	I	2	000160!	DS	0085	.00	45.05	1.08	0	0001
13	FC 298	G	I	3	000160!	DS	0046	.00	40.02	.57	0	0001
14	FC 298	G	I	4	000160!	DS	0225	.00	46.26	.78	0	0001
15	FC 298	G	I	5	000160!	DS	0285	.00	51.76	3.27	0	0001
16	FC 298	G	I	6	000160!	DS	0408	.00	62.82	.91	0	0001

SEQ NO = 1 DRILL HOLE NO = FC 299 FORMAT = A STATE = 43 COUNTY = 015 TWP = 23S RANGE = 6E SECTION = 06

SECTION CODE = SURFACE ELEV. = 6005.72 HOW DET. = 6

N-COORD = 187850 E-COORD = 2062336 SOURCE = 2 LOCATION = 1

THK CORED = 330.00 THK N-CORED = 201.00 USGS = WALKER FLAT SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 299 FORMAT = B PROPERTY OR FARM = DRILLER = KRUG

DRILL CONTR = DATE DRILLED = 0574

TWP OR PLACE = CENTRAL DEEP COMMENTS =

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 299	C	.00	168.50	168.50	SM			0	
4	FC 299	C	168.50	201.00	32.50	SS		TF	0	
5	FC 299	C	201.00	214.00	13.00	SS	CAS LIT GRY HRD		0	CORED
6	FC 299	C	214.00	215.25	1.25	SS	CAS HRD SHY		0	CORED
7	FC 299	C	215.25	215.45	.20	BO			0	CORED
8	FC 299	C	215.45	215.75	.30	SH	CRB BNY		0	CORED
9	FC 299	C	215.75	217.45	1.70	SH	DRK GRY SFT		0	CORED
10	FC 299	C	217.45	219.00	1.55	CO			0	CORED RIDER
11	FC 299	C	219.00	220.10	1.10	SH	DRK GRY SFT		0	CORED
12	FC 299	C	220.10	221.00	.90	ST	SSY HRD		0	CORED
13	FC 299	C	221.00	231.00	10.00	SS	LIT GRY HRD		0	CORED
14	FC 299	C	231.00	278.60	47.60	SS	CAS HRD		0	CORED
15	FC 299	C	278.60	279.10	.50	CO			0	CORED RIDER
16	FC 299	C	279.10	280.30	1.20	SH	CRB COL		0	CORED
17	FC 299	C	280.30	281.00	.70	SH	BNY		0	CORED
18	FC 299	C	281.00	281.10	.10	CO			0	CORED RIDER
19	FC 299	C	281.10	281.20	.10	ST	CRB BLK		0	CORED
20	FC 299	C	281.20	281.50	.30	CO			0	CORED RIDER
21	FC 299	C	281.50	281.75	.25	BO			0	CORED
22	FC 299	C	281.75	282.95	1.20	CO			0	CORED RIDER
23	FC 299	C	282.95	283.10	.15	SH	CRB CLY		0	CORED
24	FC 299	C	283.10	285.35	2.25	SH	CLY		0	CORED
25	FC 299	C	285.35	287.00	1.65	ST	CAS SDY		0	CORED
26	FC 299	C	287.00	288.55	1.55	SH	CLY SFT		0	CORED
27	FC 299	C	288.55	289.00	.45	CO			0	CORED
28	FC 299	C	289.00	289.85	.85	ST	CAS HRD		0	CORED
29	FC 299	C	289.85	291.00	1.15	SH	DRK GRY CAS SLY		0	CORED
30	FC 299	C	291.00	294.90	3.90	CO		J	0	CORED
31	FC 299	C	294.90	295.45	.55	BO			0	CORED
32	FC 299	C	295.45	296.40	.95	CO			0	CORED
33	FC 299	C	296.40	296.80	.40	BO			0	CORED
34	FC 299	C	296.80	301.50	4.70	CO		UI	0	CORED
35	FC 299	C	301.50	302.10	.60	SH	BRN SFT		0	CORED
36	FC 299	C	302.10	302.85	.75	ST	BRN SDY		0	CORED

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
37	FC 299	C	302.85	307.00	4.15	SS	STY HRD		0	CORED
38	FC 299	C	307.00	321.00	14.00	SS	HRD GRY		0	CORED
39	FC 299	C	321.00	331.00	10.00	SS	WHT HRD		0	CORED
40	FC 299	C	331.00	334.45	3.45	SS	LIT GRY HRD		0	CORED
41	FC 299	C	334.45	342.40	7.95	CO		LI	1	CORED
42	FC 299	C	342.40	343.00	.60	SH	CRB COL		0	CORED
43	FC 299	C	343.00	348.45	5.45	SH	SLY		0	CORED
44	FC 299	C	348.45	349.00	.55	SH	DRK GRY MED HRD		0	CORED
45	FC 299	C	349.00	349.50	.50	SH	DRK GRY BNY		0	CORED
46	FC 299	C	349.50	350.45	.95	BO	SHY		0	CORED
47	FC 299	C	350.45	350.55	.10	CO			0	CORED RIDER
48	FC 299	C	350.55	350.75	.20	BO			0	CORED
49	FC 299	C	350.75	351.00	.25	CO			0	CORED RIDER
50	FC 299	C	351.00	351.90	.90	SH	CRB HRD		0	CORED
51	FC 299	C	351.90	352.40	.50	CO		LI	5	CORED
52	FC 299	C	352.40	352.70	.30	BO		LI	5	CORED
53	FC 299	C	352.70	353.60	.90	CO		LI	5	CORED
54	FC 299	C	353.60	353.70	.10	SH	CRB MED HRD		0	CORED
55	FC 299	C	353.70	361.00	7.30	SH	SDY HRD		0	CORED
56	FC 299	C	361.00	361.55	.55	ST	GRY HRD		0	CORED
57	FC 299	C	361.55	363.00	1.45	SH	DRK GRY HRD		0	CORED
58	FC 299	C	363.00	368.00	5.00	ST	SHY HRD		0	CORED
59	FC 299	C	368.00	369.00	1.00	ST	SDY		0	CORED
60	FC 299	C	369.00	371.00	2.00	SS	CAS HRD		0	CORED
61	FC 299	C	371.00	373.10	2.10	SS	CAS SHY HRD		0	CORED
62	FC 299	C	373.10	373.55	.45	SH	DRK GRY MED HRD		0	CORED
63	FC 299	C	373.55	374.30	.75	ST	CAS HRD		0	CORED
64	FC 299	C	374.30	376.10	1.80	SH	DRK GRY SLY		0	CORED
65	FC 299	C	376.10	381.00	4.90	ST	CAS SHY HRD		0	CORED
66	FC 299	C	381.00	388.80	7.80	SH	LIT GRY HRD CAS		0	CORED
67	FC 299	C	388.80	389.50	.70	SH	BLK CRB		0	CORED
68	FC 299	C	389.50	390.85	1.35	SH	DRK GRY SFT		0	CORED
69	FC 299	C	390.85	391.00	.15	SH			0	CORED LOSS
70	FC 299	C	391.00	392.25	1.25	SH	GRY SLY		0	CORED
71	FC 299	C	392.25	396.40	4.15	ST	CAS CLY		0	CORED
72	FC 299	C	396.40	399.00	2.60	SH	DRK GRY HRD SLY		0	CORED
73	FC 299	C	399.00	399.70	.70	ST	LIT GRY HRD CAS		0	CORED
74	FC 299	C	399.70	401.00	1.30	SH	DRK GRY SLY HRD		0	CORED
75	FC 299	C	401.00	401.55	.55	ST	GRY		0	CORED
76	FC 299	C	401.55	402.55	1.00	SS	HRD		0	CORED
77	FC 299	C	402.55	405.00	2.45	ST	GRY CRB		0	CORED
78	FC 299	C	405.00	411.20	6.20	CO		G	0	CORED
79	FC 299	C	411.20	421.00	9.80	SH	GRY SLY		0	CORED
80	FC 299	C	421.00	431.00	10.00	ST	SHY		0	CORED
81	FC 299	C	431.00	451.00	20.00	SS	GRY		0	CORED
82	FC 299	C	451.00	464.75	13.75	SS	LIT GRY HRD		0	CORED
83	FC 299	C	464.75	465.50	.75	SH	BLK CAS		0	CORED
84	FC 299	C	465.50	465.75	.25	SS	GRY		0	CORED
85	FC 299	C	465.75	467.75	2.00	SH	DRK GRY		0	CORED
86	FC 299	C	467.75	467.90	.15	SS			0	CORED
87	FC 299	C	467.90	474.05	6.15	SH	BLK CRB		0	CORED

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
88	FC 299	C	474.05	474.15	.10	BO		D	0	CORED
89	FC 299	C	474.15	474.60	.45	CO		D	0	CORED
90	FC 299	C	474.60	474.90	.30	BO		D	0	CORED
91	FC 299	C	474.90	476.60	1.70	CO		D	0	CORED
92	FC 299	C	476.60	476.80	.20	BO		D	0	CORED
93	FC 299	C	476.80	477.35	.55	CO		D	0	CORED
94	FC 299	C	477.35	477.45	.10	BO		D	0	CORED
95	FC 299	C	477.45	478.80	1.35	CO		D	0	CORED
96	FC 299	C	478.80	480.65	1.85	SH	BLK CRB		0	CORED
97	FC 299	C	480.65	482.95	2.30	CO		C	0	CORED
98	FC 299	C	432.95	483.20	.25	BO		C	0	CORED
99	FC 299	C	483.20	484.30	1.10	CO		C	0	CORED
100	FC 299	C	484.30	484.70	.40	BO		C	0	CORED
101	FC 299	C	484.70	485.40	.70	CO		C	0	CORED
102	FC 299	C	485.40	485.65	.25	BO		C	0	CORED
103	FC 299	C	485.65	486.20	.55	CO		C	0	CORED
104	FC 299	C	486.20	487.00	.80	BO		C	0	CORED
105	FC 299	C	487.00	488.10	1.10	CO		C	0	CORED
106	FC 299	C	488.10	488.70	.60	BO			0	CORED
107	FC 299	C	488.70	494.35	5.65	SH	CRB BLK		0	CORED
108	FC 299	C	494.35	501.00	6.65	ST	LIT GRY HRD CLY		0	CORED
109	FC 299	C	501.00	505.00	4.00	SS	LIT GRY CAS		0	CORED
110	FC 299	C	505.00	505.70	.70	SS	GRY CLY		0	CORED
111	FC 299	C	505.70	505.90	.20	ST	CLY		0	CORED
112	FC 299	C	505.90	508.80	2.90	SS	GRY		0	CORED
113	FC 299	C	508.80	509.10	.30	CO			0	CORED RIDER
114	FC 299	C	509.10	509.20	.10	BO			0	CORED
115	FC 299	C	509.20	511.00	1.80	SH			0	CORED
116	FC 299	C	511.00	511.30	.30	BO			0	CORED
117	FC 299	C	511.30	511.40	.10	CO			0	CORED RIDER
118	FC 299	C	511.40	511.85	.45	BO			0	CORED
119	FC 299	C	511.35	513.20	1.35	SH	DRK GRY		0	CORED
120	FC 299	C	513.20	513.35	.15	CO		A	0	CORED
121	FC 299	C	513.35	513.95	.60	BO		A	0	CORED
122	FC 299	C	513.95	523.70	9.75	CO		A	0	CORED
123	FC 299	C	523.70	525.95	2.25	ST	CRB COL		0	CORED
124	FC 299	C	525.95	531.00	5.05	SS	GRY HRD BH		0	CORED

			SEAM CODE	SAMP NO	SAMPLE DEPTH FROM	SAMPLE DEPTH TO	ANALYSIS CODE	PROXIMATE ANALYSIS %MOIS	%VOL	%CARB	%ASH	%SUL	BTU	EQUIL. MOIST	F P
1	FC 299	D	J	1	289.95	291.00	1	.7	.0	.0	88.0	.36	289	.00	F
2	FC 299	D	J	1	289.95	291.00	2	.0	.0	.0	88.6	.36	291	.00	F
3	FC 299	D	J	1	301.50	302.10	1	2.7	.0	.0	84.4	.38	820	.00	F
4	FC 299	D	J	2	301.50	302.10	2	.0	.0	.0	86.7	.39	843	.00	F

			SEAM CODE	SAMP NO	SP GR	TYPE CODE	FLOAT SINK DATA % WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE

| | | | SEAM CODE | SAMP NO | SP GR | TYPE CODE | FLOAT SINK DATA % WT. | % VOL | % ASH | % SUL | BTU | SCREEN SIZE |

1	FC 299	G	J	1	0001601	DF	6954	.00	16.14	2.08	0	0001
2	FC 299	G	J	2	0001601	DF	9674	.00	7.64	1.07	0	0001
3	FC 299	G	J	3	0001601	DF	6638	.00	12.13	1.06	0	0001
4	FC 299	G	J	4	0001601	DF	9525	.00	4.69	.79	0	0001
5	FC 299	G	J	5	0001601	DF	9478	.00	5.98	1.28	0	0001
6	FC 299	G	J	6	0001601	DS	3046	.00	56.79	5.48	0	0001
7	FC 299	G	J	7	0001601	DS	0326	.00	43.61	18.68	0	0001
8	FC 299	G	J	8	0001601	DS	3362	.00	48.66	2.83	0	0001
9	FC 299	G	J	9	0001601	DS	0475	.00	43.47	15.70	0	0001
10	FC 299	G	J	0	0001601	DS	0522	.00	42.83	7.98	0	0001

SEQ NO = 1 DRILL HOLE NO = FC 308 FORMAT = A STATE = 43 COUNTY = 015 TWP = 23S RANGE = 6E SECTION = 06

SECTION CODE = SURFACE ELEV. = 6071.51 HOW DET. = 6

N-COORD = 186255 E-COORD = 2062724 SOURCE = 2 LOCATION = 1

THK CORED = .00 THK N-CORED = .00 USGS = WALKER FLAT SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 308 FORMAT = B PROPERTY OR FARM = DRILLER = DANIELS

DRILL CONTR = DATE DRILLED = 0674

TWP OR PLACE = CENTRAL DEEP COMMENTS =

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 308	C	.00	160.00	160.00	SH			0	
4	FC 308	C	160.00	178.20	18.20	SH			0	
5	FC 308	C	178.20	270.30	92.10	SS	SHY STK	TF	0	
6	FC 308	C	270.30	271.30	1.00	CO			0	RIDER
7	FC 308	C	271.30	276.00	4.70	SH			0	
8	FC 308	C	276.00	276.90	.90	SS			0	
9	FC 308	C	276.90	281.90	5.00	SH			0	
10	FC 308	C	281.90	283.00	1.10	CO		J	1	
11	FC 308	C	283.00	285.20	2.20	SH	PTG		0	
12	FC 308	C	285.20	287.10	1.90	CO		J	1	
13	FC 308	C	287.10	288.60	1.50	SH	PTG		0	
14	FC 308	C	288.60	294.60	6.00	CO		UI	0	
15	FC 308	C	294.60	315.00	20.40	SH			0	
16	FC 308	C	315.00	338.70	23.70	SS			0	
17	FC 308	C	338.70	340.70	2.00	CO		LI	1	
18	FC 308	C	340.70	341.70	1.00	SH	PTG	LI	1	
19	FC 308	C	341.70	345.00	3.30	CO		LI	1	
20	FC 308	C	345.00	348.50	3.50	SH			0	
21	FC 308	C	348.50	349.70	1.20	CO		LI	5	
22	FC 308	C	349.70	352.00	2.30	SH	PTG		0	
23	FC 308	C	352.00	353.00	1.00	CO			0	
24	FC 308	C	353.00	407.20	54.20	SS	SHY STK		0	
25	FC 308	C	407.20	412.60	5.40	CO		G	0	
26	FC 308	C	412.60	471.60	59.00	SH			0	
27	FC 308	C	471.60	475.50	3.90	CO		D	0	
28	FC 308	C	475.50	477.50	2.00	SH			0	STICKY
29	FC 308	C	477.50	483.90	6.40	CO		C	0	
30	FC 308	C	483.90	501.20	17.30	SH			0	
31	FC 308	C	501.20	510.50	9.30	CO		A	0	
32	FC 308	C	510.50	519.80	9.30	SH			0	
33	FC 308	C	519.80	540.00	20.20	SS	BH		0	LOST CIRCUL

SEQ NO = 1 DRILL HOLE NO = FC 329 FORMAT = A STATE = 43 COUNTY = 015 TWP = 23S RANGE = 6E SECTION = 05

SECTION CODE = SURFACE ELEV. = 6101.36 HOW DET. = 6

N-COORD = 185054 E-COORD = 2065234 SOURCE = 2 LOCATION = 1

THK CORED = 127.05 THK N-CORED = 187.95 USGS = WALKER FLAT SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 329 FORMAT = B PROPERTY OR FARM = DRILLER = GRIMM

DRILL CONTR = DATE DRILLED = 0574

TWP OR PLACE = STRIP 2 COMMENTS =

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 329	C	.00	1.80	1.80	SM			0	
4	FC 329	C	1.80	3.50	1.70	SH	GRY		0	
5	FC 329	C	3.50	19.70	16.20	SS	GRY		0	
6	FC 329	C	19.70	20.20	.50	SH	GRY		0	
7	FC 329	C	20.20	31.20	11.00	SS	GRY		0	
8	FC 329	C	31.20	33.30	2.10	SH	GRY		0	
9	FC 329	C	33.30	39.70	6.40	SS	GRY		0	
10	FC 329	C	39.70	40.30	.60	SH	GRY		0	
11	FC 329	C	40.30	85.20	44.90	SS	GRY		0	
12	FC 329	C	85.20	86.10	.90	SH	GRY		0	
13	FC 329	C	86.10	86.70	.60	SS	GRY		0	
14	FC 329	C	86.70	87.30	.60	SH	GRY		0	
15	FC 329	C	87.30	90.00	2.70	SS	GRY		0	
16	FC 329	C	90.00	92.55	2.55	SS	GRY CAS HRD		0	CORED
17	FC 329	C	92.55	96.10	3.55	SH	DRK GRY SDY		0	CORED
18	FC 329	C	96.10	99.75	3.65	SH	CAS SDY SLY		0	CORED
19	FC 329	C	99.75	100.00	.25	ST	CAS SDY HRD		0	CORED
20	FC 329	C	100.00	101.00	1.00	SH	CAS DRK GRY SDY		0	CORED
21	FC 329	C	101.00	101.50	.50	SS	CAS LIT GRY HRD		0	CORED
22	FC 329	C	101.50	103.70	2.20	SH	CAS DRK GRY		0	CORED
23	FC 329	C	103.70	103.90	.20	SS	CAS LIT GRY HRD		0	CORED
24	FC 329	C	103.90	105.00	1.10	CO	BNY	J	0	CORED
25	FC 329	C	105.00	106.50	1.50	SH	GRY CLY		0	CORED
26	FC 329	C	106.50	106.60	.10	SH	CRB		0	CORED
27	FC 329	C	106.60	112.00	5.40	CO		UI	0	CORED
28	FC 329	C	112.00	112.15	.15	SH	CRB CAS COL		0	CORED
29	FC 329	C	112.15	120.00	7.85	SH	DRK GRY HRD		0	CORED
30	FC 329	C	120.00	130.00	10.00	ST	DRK GRY HRD		0	CORED
31	FC 329	C	130.00	163.00	33.00	SS	CAS LIT GRY HRD		0	CORED
32	FC 329	C	163.00	165.30	2.30	SH	GRY HRD		0	CORED
33	FC 329	C	165.30	166.00	.70	ST	LIT GRY CLY		0	CORED
34	FC 329	C	166.00	168.75	2.75	SH	GRY HRD		0	CORED
35	FC 329	C	168.75	170.00	1.25	SS	LIT GRY HRD		0	CORED
36	FC 329	C	170.00	195.90	25.90	SS	CAS LIT GRY HRD		0	CORED

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
37	FC 329	C	195.90	197.90	2.00	ST	CLY HRD		0	CORED
38	FC 329	C	197.90	198.10	.20	SH	GRY SLY		0	CORED
39	FC 329	C	198.10	199.75	1.65	ST	DRK GRY CLY		0	CORED
40	FC 329	C	199.75	200.00	.25	ST			0	CORED
41	FC 329	C	200.00	200.40	.40	SS	LIT GRY HRD		0	CORED
42	FC 329	C	200.40	200.75	.35	ST	BLK HRD		0	CORED
43	FC 329	C	200.75	201.65	.90	SS	LIT GRY HRD		0	CORED
44	FC 329	C	201.65	201.95	.30	ST	BRN HRD		0	CORED
45	FC 329	C	201.95	202.35	.40	SS	SLY		0	CORED
46	FC 329	C	202.35	202.50	.15	SH	BLK SDY		0	CORED
47	FC 329	C	202.50	203.35	.85	SS	SLY		0	CORED
48	FC 329	C	203.35	203.35	.00	CO	EXH	LI	1	
49	FC 329	C	203.35	204.50	1.15	SH	DRK GRY CLY CRB		0	CORED
50	FC 329	C	204.50	207.95	3.45	CO		LI	5	
51	FC 329	C	207.95	208.25	.30	SH	CRB		0	CORED
52	FC 329	C	208.25	208.80	.55	SH	LIT GRY CLY SLY		0	CORED
53	FC 329	C	208.80	209.10	.30	ST	LIT GRY CLY		0	CORED
54	FC 329	C	209.10	210.00	.90	SS	LIT GRY HRD		0	CORED
55	FC 329	C	210.00	210.70	.70	ST	LIT GRY HRD		0	CORED
56	FC 329	C	210.70	211.25	.55	ST	LIT GRY SDY		0	CORED
57	FC 329	C	211.25	212.15	.90	SH	DRK GRY SDY		0	CORED
58	FC 329	C	212.15	212.80	.65	ST	LIT GRY SDY HRD		0	CORED
59	FC 329	C	212.80	214.40	1.60	SH	DRK GRY SDY		0	CORED
60	FC 329	C	214.40	216.95	2.55	ST	LIT GRY SDY HRD		0	CORED
61	FC 329	C	216.95	217.05	.10	SH	LIT GRY SDY		0	CORED
62	FC 329	C	217.05	218.00	.95	SH			0	LOSS
63	FC 329	C	218.00	237.60	19.60	SH	GRY		0	
64	FC 329	C	237.60	239.70	2.10	SS	GRY		0	
65	FC 329	C	239.70	240.00	.30	SH	GRY		0	
66	FC 329	C	240.00	245.50	5.50	SS	GRY		0	
67	FC 329	C	245.50	245.90	.40	SH	GRY		0	
68	FC 329	C	245.90	248.00	2.10	SS	GRY		0	
69	FC 329	C	248.00	249.00	1.00	SH	GRY		0	
70	FC 329	C	249.00	255.00	6.00	SS	GRY		0	
71	FC 329	C	255.00	262.70	7.70	SH	GRY SDY		0	
72	FC 329	C	262.70	265.80	3.10	CO		G	0	
73	FC 329	C	265.80	275.70	9.90	SS			0	
74	FC 329	C	275.70	276.80	1.10	CO			0	RIDER
75	FC 329	C	276.80	287.00	10.20	SS			0	
76	FC 329	C	287.00	290.90	3.90	CO		D	0	
77	FC 329	C	290.90	292.80	1.90	SH			0	
78	FC 329	C	292.80	297.20	4.40	CO		C	0	
79	FC 329	C	297.20	298.20	1.00	CO		C	0	
80	FC 329	C	298.20	299.10	.90	CO		C	0	
81	FC 329	C	299.10	315.00	15.90	SS	BH		0	

			SEAM CODE	SAMP NO	SAMPLE DEPTH FROM	TO	ANALYSIS CODE	PROXIMATE ANALYSIS %MOIS	%VOL	%CARB	%ASH	%SUL	BTU	EQUIL. MOIST	F P
1	FC 329	D		1	101.50	103.90	1	2.7	.0	.0	87.8	1.70	145	.00	F
2	FC 329	D	J	2	105.00	106.60	1	18.8	.0	.0	71.6	1.89	352	.00	F
3	FC 329	D		3	112.00	113.00	1	2.5	.0	.0	87.5	.51	614	.00	F
4	FC 329	D		4	204.00	204.50	1	3.3	.0	.0	79.5	2.30	1729	.00	F
5	FC 329	D	I	5	207.95	208.80	1	1.7	.0	.0	90.5	.17	480	.00	F
6	FC 329	D		6	101.50	103.90	2	.0	.0	.0	90.1	1.75	149	.00	F
7	FC 329	D	J	2	105.00	106.60	2	.0	.0	.0	88.2	2.33	433	.00	F
8	FC 329	D		8	112.00	113.00	2	.0	.0	.0	89.7	.52	630	.00	F
9	FC 329	D		9	204.00	204.50	2	.0	.0	.0	82.2	2.38	1789	.00	F
10	FC 329	D	I	0	207.95	208.80	2	.0	.0	.0	92.1	.17	488	.00	F

FLOAT SINK DATA

			SEAM CODE	SAMP NO	SP GR	TYPE CODE	% WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE
1	FC 329	G	J	1	000160!	DF	5591	.00	19.01	4.54	0	0001
2	FC 329	G	J	2	000160!	DF	6935	.00	10.43	2.30	0	0001
3	FC 329	G	J	3	000160!	DF	9380	.00	6.71	1.35	0	0001
4	FC 329	G	J	4	000160!	DF	9756	.00	8.07	1.77	0	0001
5	FC 329	G	I	5	000160!	DF	9909	.00	5.97	.84	0	0001
6	FC 329	G	I	6	000160!	DF	9808	.00	6.90	.69	0	0001
7	FC 329	G	J	7	000160!	DS	4409	.00	50.66	5.91	0	0001
8	FC 329	G	J	8	000160!	DS	3065	.00	50.43	4.95	0	0001
9	FC 329	G	J	9	000160!	DS	0620	.00	49.56	30.70	0	0000
10	FC 329	G	J	0	000160!	DS	0244	.00	38.86	18.69	0	0001
11	FC 329	G	I	1	000160!	DS	0091	.00	64.82	3.70	0	0001
12	FC 329	G	I	2	000160!	DS	0192	.00	64.61	1.37	0	0001

SEQ NO = 1 DRILL HOLE NO = FC 333 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 31

SECTION CODE = SURFACE ELEV. = 6042.17 HOW DET. = 6

N-COORD = 188736 E-COORD = 2058815 SOURCE = 2 LOCATION = 1

THK CORED = 380.00 THK N-CORED = 401.00 USGS = SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 333 FORMAT = B PROPERTY OR FARM = DRILLER = KNIGHT

DRILL CONTR = DATE DRILLED = 0674

TWP OR PLACE = COMMENTS =

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 333	C	.00	401.00	401.00	SM			0	
4	FC 333	C	401.00	431.00	30.00	SH	DRK GRY		0	CORED
5	FC 333	C	431.00	432.27	1.27	SH	CAS CRB SDY		0	CORED
6	FC 333	C	432.27	432.27	.00	SS		TF	0	
7	FC 333	C	432.27	441.00	8.73	SS	CAS		0	CORED
8	FC 333	C	441.00	480.90	39.90	SS	CAS HRD		0	CORED
9	FC 333	C	480.90	481.00	.10	SS			0	CORED LOSS
10	FC 333	C	481.00	520.65	39.65	SS	CAS HRD		0	CORED
11	FC 333	C	520.65	523.60	2.95	CO		M	0	CORED RIDER
12	FC 333	C	523.60	530.80	7.20	SH	CRB CAS COL		0	CORED
13	FC 333	C	530.80	531.00	.20	SS			0	CORED LOSS
14	FC 333	C	531.00	532.05	1.05	CO			0	CORED RIDER
15	FC 333	C	532.05	532.20	.15	PY			0	CORED
16	FC 333	C	532.20	532.90	.70	CO			0	CORED RIDER
17	FC 333	C	532.90	533.00	.10	SH	CRB CAS COL		0	CORED
18	FC 333	C	533.00	535.00	2.00	SH	CAS CRB COL SDY		0	CORED
19	FC 333	C	535.00	537.00	2.00	SS	HRD CAS		0	CORED
20	FC 333	C	537.00	538.00	1.00	SH	MED HRD		0	CORED
21	FC 333	C	538.00	542.15	4.15	CO		K	0	CORED
22	FC 333	C	542.15	542.80	.65	SH	CAS CRB COL	K	0	CORED
23	FC 333	C	542.80	543.10	.30	CO		K	0	CORED
24	FC 333	C	543.10	543.40	.30	SH	CAS SDY MED HRD	K	0	CORED
25	FC 333	C	543.40	546.00	2.60	CO		K	0	CORED
26	FC 333	C	546.00	546.50	.50	SH	CAS CRB COL		0	CORED
27	FC 333	C	546.50	551.00	4.50	SS	CAS CRB COL HRD		0	CORED
28	FC 333	C	551.00	554.70	3.70	SH	CRB CAS COL		0	CORED
29	FC 333	C	554.70	558.90	4.20	CO		J	0	CORED
30	FC 333	C	558.90	559.20	.30	SH	CRB CAS COL		0	CORED
31	FC 333	C	559.20	560.00	.80	SH	SDY MED HRD		0	CORED
32	FC 333	C	560.00	560.20	.20	SH	CAS CRB COL		0	CORED
33	FC 333	C	560.20	564.00	3.80	CO		UI	0	
34	FC 333	C	564.00	565.20	1.20	SH			0	
35	FC 333	C	565.20	579.05	13.85	CO		LI	0	
36	FC 333	C	579.05	582.30	3.25	SH	CAS CRB COL		0	CORED

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
37	FC 333	C	582.30	583.80	1.50	SS	CRB COL MED HRD		0	CORED
38	FC 333	C	583.80	585.00	1 20	SH	MED SFT		0	CORED
39	FC 333	C	585.00	586.60	1.60	SS	HRD		0	CORED
40	FC 333	C	586.60	589.00	2.40	SH	MED SFT		0	CORED
41	FC 333	C	589.00	589.25	.25	SH	MED HRD		0	CORED
42	FC 333	C	589.25	591.00	1.75	SH	SDY SLY HRD		0	CORED
43	FC 333	C	591.00	593.20	2.20	ST	SHY HRD		0	CORED
44	FC 333	C	593.20	597 00	3.80	SH	SLY MED HRD		0	CORED
49	FC 333	C	597.00	600.75	3.75	ST	SHY HRD		0	CORED
51	FC 333	C	600.75	601.00	.25	SH	DRK GRY SFT		0	CORED
52	FC 333	C	601.00	602.00	1.00	SH	SLY HRD		0	CORED
53	FC 333	C	602.00	603.00	1.00	ST	SHY HRD		0	CORED
54	FC 333	C	603.00	605.50	2.50	SH	SLY HRD		0	CORED
55	FC 333	C	605.50	610.75	5.25	ST	SHY HRD		0	CORED
56	FC 333	C	610.75	611.00	.25	SH	DRK GRY		0	CORED
57	FC 333	C	611.00	613.00	2.00	SH	MED GRY SLY		0	CORED
58	FC 333	C	613.00	614.20	1.20	SH	DRK GRY MED HRD		0	CORED
59	FC 333	C	614.20	614.35	.15	ST	LIT BRN HRD		0	CORED
60	FC 333	C	614.35	615.60	1.25	SH	SLY		0	CORED
61	FC 333	C	615.60	617.00	1.40	ST	LIT GRY HRD		0	CORED
62	FC 333	C	617.00	620.35	3.35	ST	SDY HRD		0	CORED
63	FC 333	C	620.35	631.00	10.65	SS	CAS LIT GRY HRD		0	CORED
64	FC 333	C	631.00	644.35	13.35	SS	HRD		0	CORED
65	FC 333	C	644.35	645.00	.65	SH	CRB		0	CORED
66	FC 333	C	645.00	651.60	6.60	CO		G	0	CORED
67	FC 333	C	651.60	653.00	1.40	SH	CRB SLY HRD		0	CORED
68	FC 333	C	653.00	654.30	1.30	SH	CRB SDY HRD		0	CORED
69	FC 333	C	654.30	657.20	2.90	SS	LIT GRY HRD		0	CORED
70	FC 333	C	657.20	661.00	3.80	SH	CRB		0	CORED
71	FC 333	C	661.00	665.00	4.00	SS	LIT GRY SDY		0	CORED
72	FC 333	C	665.00	700.50	35.50	SS	LIT GRY HRD		0	CORED
73	FC 333	C	700.50	704.50	4.00	CO		D	0	CORED
74	FC 333	C	704.50	705.00	.50	SH	CRB MED HRD		0	CORED
75	FC 333	C	705.00	705.40	.40	CL	SDY SHY		0	CORED
76	FC 333	C	705.40	706.35	.95	ST	SDY MED SFT		0	CORED
77	FC 333	C	706.35	707.55	1.20	CO		C	0	CORED
78	FC 333	C	707.55	707.70	.15	SH	CRB PYT	C	0	CORED
79	FC 333	C	707.70	711.35	3.65	CO		C	0	CORED
80	FC 333	C	711.35	711.70	.35	SH	CRB	C	0	CORED
81	FC 333	C	711.70	713.10	1.40	CO		C	0	CORED
82	FC 333	C	713.10	713.60	.50	SH	CRB COL		0	CORED
83	FC 333	C	713.60	714.50	.90	ST	CRB SHY		0	CORED
84	FC 333	C	714.50	717.35	2.85	ST	HRD		0	CORED
85	FC 333	C	717.35	717.70	.35	ST	HRD CLY		0	CORED
86	FC 333	C	717.70	721.00	3.30	ST	SHY		0	CORED
87	FC 333	C	721.00	723.60	2.60	ST	HRD CLY		0	CORED
88	FC 333	C	723.60	726.00	2.40	SH	CRB		0	CORED
89	FC 333	C	726.00	726.40	.40	SH	SLY CLY SFT		0	CORED
90	FC 333	C	726.40	728.20	1.80	ST	SDY SHY		0	CORED
91	FC 333	C	728.20	747.00	18.80	SS	CAS GRY HRD		0	CORED
92	FC 333	C	747.00	749.00	2.00	SH	SDY CRB		0	CORED

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
93	FC 333	C	749.00	751.00	2.00	SS	SLY HRD		0	CORED
94	FC 333	C	751.00	755.75	4.75	SH	CAS SDY		0	CORED
95	FC 333	C	755.75	756.80	1.05	SH	CRB COL SLY		0	CORED
96	FC 333	C	756.80	769.00	12.20	CO		A	0	CORED
97	FC 333	C	769.00	770.05	1.05	SH	CRB SLY		0	CORED
98	FC 333	C	770.05	771.00	.95	ST	SHY		0	CORED
99	FC 333	C	771.00	772.20	1.20	SH	CRB SDY SLY		0	CORED
100	FC 333	C	772.20	773.00	.80	SS	SLY SHY		0	CORED
101	FC 333	C	773.00	781.00	8.00	SS	LIT GRY HRD BH		0	CORED

			SEAM CODE	SAMP NO	SAMPLE DEPTH FROM	SAMPLE DEPTH TO	ANALYSIS CODE	PROXIMATE ANALYSIS %MOIS	%VOL	%CARB	%ASH	%SUL	BTU	EQUIL. MOIST	F P
1	FC 333	D	J	1	543.10	543.40	1	4.0	.0	.0	82.4	.01	532	.00	F
2	FC 333	D	J	1	543.10	543.40	1	.0	.0	.0	85.8	.01	554	.00	F
3	FC 333	D	J	2	546.00	547.00	2	3.6	.0	.0	73.3	3.29	2542	.00	F
4	FC 333	D	J	2	546.00	547.00	2	.0	.0	.0	76.1	3.41	2637	.00	F
5	FC 333	D		3	553.00	554.70	1	3.3	.0	.0	83.0	1.80	790	.00	F
6	FC 333	D		3	553.00	554.70	2	.0	.0	.0	85.8	1.86	817	.00	F
7	FC 333	D	I	4	558.90	560.20	1	6.6	.0	.0	76.6	.08	521	.00	F
8	FC 333	D	I	4	558.90	560.20	2	.0	.0	.0	82.0	.09	558	.00	F
9	FC 333	D	I	5	579.00	579.70	1	4.5	.0	.0	69.9	.58	2697	.00	F
10	FC 333	D	I	5	579.00	579.70	2	.0	.0	.0	73.2	.61	2823	.00	F

			SEAM CODE	SAMP NO	SP GR	TYPE CODE	FLOAT SINK DATA % WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE
1	FC 333	G	J	1	0001601	DF	9647	.00	4.88	1.69	0	0001
2	FC 333	G	J	2	0001601	DF	8355	.00	16.31	1.29	0	0001
3	FC 333	G	I	3	0001601	DF	9163	.00	7.63	.77	0	0001
4	FC 333	G	I	4	0001601	DF	9170	.00	10.18	.49	0	0001
5	FC 333	G	I	5	0001601	DF	9919	.00	5.17	.51	0	0001
6	FC 333	G	I	6	0001601	DF	9756	.00	13.01	.39	0	0001
7	FC 333	G	I	7	0001601	DF	9445	.00	8.50	.42	0	0001
8	FC 333	G	I	8	0001601	DF	9918	.00	4.07	.32	0	0001
9	FC 333	G	I	9	0001601	DF	9680	.00	7.46	.46	0	0001
10	FC 333	G	I	0	0001601	DF	9918	.00	6.05	.48	0	0001
11	FC 333	G	I	1	0001601	DF	9819	.00	6.93	.49	0	0001
12	FC 333	G	I	2	0001601	DF	9969	.00	4.90	.71	0	0001
13	FC 333	G	J	3	0001601	DS	0353	.00	36.81	12.14	0	0001
14	FC 333	G	I	4	0001601	DS	1645	.00	50.88	4.40	0	0001
15	FC 333	G	I	5	0001601	DS	0837	.00	47.14	6.32	0	0001
16	FC 333	G	I	6	0001601	DS	0830	.00	72.50	.23	0	0001
17	FC 333	G	I	7	0001601	DS	0081	.00	33.25	.56	0	0001
18	FC 333	G	I	8	0001601	DS	0244	.00	41.57	.63	0	0001
19	FC 333	G	I	9	0001601	DS	0566	.00	37.94	.31	0	0001
20	FC 333	G	I	0	0001601	DS	0082	.00	33.71	.48	0	0001
21	FC 333	G	I	1	0001601	DS	0320	.00	59.17	.48	0	0001

			SEAM CODE	SAMP NO	SP GR	TYPE CODE	FLOAT SINK DATA % WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE
22	FC 333	G	I	2	0001601	DS	0082	.00	51.48	5.98	0	0001
23	FC 333	G	I	3	0001501	DS	0181	.00	32.47	.02	0	0001
24	FC 333	G	I	4	0001501	DS	0001	.00	24.50	.99	0	0001

SEQ NO = 1 DRILL HOLE NO = FC 334 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 31

SECTION CODE = SURFACE ELEV. = 6038.36 HOW DET. = 6

N-COORD = 191105 E-COORD = 2059299 SOURCE = 2 LOCATION = 1

THK CORED = 393.80 THK N-CORED = 420.20 USGS = SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 334 FORMAT = B PROPERTY OR FARM = DRILLER = KNIGHT

DRILL CONTR = DATE DRILLED = 0674

TWP OR PLACE = COMMENTS =

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 334	C	.00	200.00	200.00	SH	GRY		0	
4	FC 334	C	200.00	260.00	60.00	SH	GRY HRD		0	
5	FC 334	C	260.00	419.00	159.00	SH	GRY		0	
6	FC 334	C	419.00	429.00	10.00	SH	CAS GRY SDY		0	CORED
7	FC 334	C	429.00	448.40	19.40	SH	DRK GRY SDY CAS		0	CORED
9	FC 334	C	448.40	448.70	.30	SH	SLY CLY MED SFT		0	CORED
10	FC 334	C	448.70	451.75	3.05	SH	SDY SLY CAS		0	CORED
11	FC 334	C	451.75	451.85	.10	SH	CLY MED SFT		0	CORED
13	FC 334	C	451.85	477.55	25.70	SH	SDY CAS		0	CORED
14	FC 334	C	477.55	479.00	1.45	CL	GRY SFT		0	
15	FC 334	C	479.00	479.00	.00	SS		TF	0	
16	FC 334	C	479.00	486.40	7.40	SH	SLY SDY CAS		0	
17	FC 334	C	486.40	492.10	5.70	SS	CAS HRD		0	CORED
18	FC 334	C	492.10	492.25	.15	SH	DRK GRY CLY SDY		0	CORED
19	FC 334	C	492.25	492.45	.20	SS	CAS HRD		0	CORED
20	FC 334	C	492.45	492.70	.25	SH	CLY SDY		0	CORED
21	FC 334	C	492.70	539.00	46.30	SS	CAS HRD		0	CORED
22	FC 334	C	539.00	543.60	4.60	SS	MED GRY HRD		0	CORED
23	FC 334	C	543.60	572.80	29.20	SS	CAS HRD		0	CORED
24	FC 334	C	572.80	573.35	.55	SH	CRB SDY		0	CORED
25	FC 334	C	573.35	573.65	.30	CO			0	CORED RIDER
26	FC 334	C	573.65	576.20	2.55	SH	CRB SDY		0	CORED
27	FC 334	C	576.20	577.45	1.25	CO			0	CORED RIDER
28	FC 334	C	577.45	582.50	5.05	SH	CRB SDY		0	CORED
29	FC 334	C	582.50	584.10	1.60	ST	CRB SDY		0	CORED
30	FC 334	C	584.10	585.15	1.05	SH	SDY SLY		0	CORED
31	FC 334	C	585.15	587.55	2.40	CO		UK	0	CORED RIDER
32	FC 334	C	587.55	588.50	.95	SH	CRB MED HRD		0	CORED
33	FC 334	C	588.50	593.00	4.50	SS	HRD GRY		0	CORED
34	FC 334	C	593.00	594.00	1.00	SH	CRB MED HRD		0	CORED
35	FC 334	C	594.00	599.50	5.50	CO		K	0	CORED
36	FC 334	C	599.50	600.00	.50	CL	GRY SDY SFT	K	0	CORED
37	FC 334	C	600.00	601.70	1.70	CO		K	0	CORED
38	FC 334	C	601.70	602.40	.70	BO			0	CORED

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
39	FC 334	C	602.40	603.00	.60	SH	HRD SDY		0	CORED
40	FC 334	C	603.00	608.00	5.00	SS	CAS HRD		0	CORED
41	FC 334	C	608.00	610.50	2.50	SH	MED HRD		0	CORED
42	FC 334	C	610.50	610.75	.25	SH	CRB HRD		0	CORED
43	FC 334	C	610.75	611.00	.25	CO	SHY	J	0	CORED
44	FC 334	C	611.00	613.90	2.90	CO		J	0	CORED
45	FC 334	C	613.90	614.10	.20	SH	CRB COL BNY		0	CORED
46	FC 334	C	614.10	614.75	.65	SH	CLY SDY		0	CORED
47	FC 334	C	614.75	615.00	.25	SH	CRB COL BNY		0	CORED
48	FC 334	C	615.00	622.30	7.30	CO		UI	0	
49	FC 334	C	622.30	624.00	1.70	BO		UI	0	
50	FC 334	C	624.00	634.50	10.50	CO		LI	0	
51	FC 334	C	634.50	636.70	2.20	SH	CRB COL SFT		0	CORED
52	FC 334	C	636.70	638.50	1.80	SH	CLY SDY		0	CORED
53	FC 334	C	638.50	640.25	1.75	SS	CAS HRD		0	CORED
54	FC 334	C	640.25	640.40	.15	SH	CLY SFT		0	CORED
55	FC 334	C	640.40	641.75	1.35	SH	CLY MED HRD		0	CORED
56	FC 334	C	641.75	642.25	.50	ST	LIT GRY HRD		0	CORED
57	FC 334	C	642.25	643.40	1.15	SH	CLY SDY MED HRD		0	CORED
58	FC 334	C	643.40	644.30	.90	SH	CLY SFT		0	CORED
59	FC 334	C	644.30	645.90	1.60	SH	CLY HRD		0	CORED
60	FC 334	C	645.90	649.00	3.10	ST	LIT GRY HRD		0	CORED
61	FC 334	C	649.00	650.30	1.30	SH	CRB CLY		0	CORED
62	FC 334	C	650.30	652.20	1.90	ST	LIT GRY CAS		0	CORED
63	FC 334	C	652.20	653.80	1.60	SH	DRK GRY CLY		0	CORED
64	FC 334	C	653.80	656.30	2.50	ST	LIT GRY		0	CORED
65	FC 334	C	656.30	657.80	1.50	SH	SLY		0	CORED
66	FC 334	C	657.80	658.40	.60	SH	CRB SLY SDY		0	CORED
67	FC 334	C	658.40	661.95	3.55	SH	CRB SLY MED HRD		0	CORED
68	FC 334	C	661.95	663.55	1.60	ST	CRB CAS		0	CORED
69	FC 334	C	663.55	664.05	.50	SH	CRB MED HRD		0	CORED
70	FC 334	C	664.05	667.25	3.20	ST	CRB CAS HRD		0	CORED
71	FC 334	C	667.25	667.85	.60	SH	CLY MED HRD		0	CORED
72	FC 334	C	667.85	668.95	1.10	SH	BLK CRB CLY		0	CORED
73	FC 334	C	668.95	669.10	.15	ST	LIT BRN MED HRD		0	CORED
74	FC 334	C	669.10	670.10	1.00	SH	CRB CLY SFT		0	CORED
75	FC 334	C	670.10	672.05	1.95	SH	SLY LIT GRY		0	CORED
76	FC 334	C	672.05	672.70	.65	ST	LIT GRY		0	CORED
77	FC 334	C	672.70	673.30	.60	ST	SDY HRD		0	CORED
78	FC 334	C	673.30	673.60	.30	SH	SLY MED HRD		0	CORED
79	FC 334	C	673.60	674.55	.95	ST	SDY HRD		0	CORED
80	FC 334	C	674.55	674.85	.30	SH	DRK GRY CLY		0	CORED
81	FC 334	C	674.85	675.20	.35	ST	SDY HRD		0	CORED
82	FC 334	C	675.20	675.60	.40	ST	LIT GRY		0	CORED
83	FC 334	C	675.60	675.90	.30	SH	SLY MED HRD		0	CORED
84	FC 334	C	675.90	676.70	.80	ST	GRY HRD		0	CORED
85	FC 334	C	676.70	677.50	.80	ST	SDY HRD		0	CORED
86	FC 334	C	677.50	681.85	4.35	ST	CAS HRD		0	CORED
87	FC 334	C	681.85	685.95	4.10	SH	CAS SLY MED HRD		0	CORED
88	FC 334	C	685.95	686.85	.90	SH	SLY SDY MED HRD		0	CORED
89	FC 334	C	686.85	687.30	.45	ST	CAS HRD		0	CORED

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
90	FC 334	C	687.30	688.80	1.50	SH	CAS MED HRD		0	CORED
91	FC 334	C	688.80	689.95	1.15	SH	CRB CAS MED HRD		0	CORED
92	FC 334	C	689.95	690.10	.15	SH	CRB SFT		0	CORED
93	FC 334	C	690.10	690.85	.75	SH	SLY SDY CRB		0	CORED
94	FC 334	C	690.85	691.25	.40	SH	CRB SFT		0	CORED
95	FC 334	C	691.25	691.70	.45	CO		G	0	CORED
96	FC 334	C	691.70	691.80	.10	SH	CRB	G	0	CORED
97	FC 334	C	691.80	697.80	6.00	CO		G	0	CORED
98	FC 334	C	697.80	699.25	1.45	SH	CRB SFT		0	CORED
99	FC 334	C	699.25	701.45	2.20	ST	SHY SLY		0	CORED
100	FC 334	C	701.45	705.80	4.35	SH	MED HRD		0	CORED
101	FC 334	C	705.80	709.00	3.20	SH	SLY		0	CORED
102	FC 334	C	709.00	710.65	1.65	ST	CAS HRD		0	CORED
103	FC 334	C	710.65	713.75	3.10	SH	CAS SLY MED HRD		0	CORED
104	FC 334	C	713.75	714.70	.95	SS	CAS HRD		0	CORED
105	FC 334	C	714.70	714.85	.15	SS	HRD		0	CORED
106	FC 334	C	714.85	716.25	1.40	SH	LIT BRN SLY		0	CORED
107	FC 334	C	716.25	717.00	.75	SS	LIT GRY HRD		0	CORED
108	FC 334	C	717.00	717.30	.30	SH	CLY SLY		0	CORED
109	FC 334	C	717.30	719.00	1.70	SS	LIT GRY HRD		0	CORED
110	FC 334	C	719.00	735.70	16.70	SS	LIT GRY HRD		0	CORED
111	FC 334	C	735.70	741.05	5.35	SS	HRD		0	CORED
112	FC 334	C	741.05	742.65	1.60	SS	COL HRD		0	CORED
113	FC 334	C	742.65	746.10	3.45	CO		D	0	CORED
114	FC 334	C	746.10	746.70	.60	ST	LIT GRY HRD		0	CORED
115	FC 334	C	746.70	748.80	2.10	CO		C	0	CORED
116	FC 334	C	748.80	748.95	.15	SH	CRB	C	0	CORED
117	FC 334	C	748.95	749.65	.70	CO		C	0	CORED
118	FC 334	C	749.65	750.00	.35	SH	CRB SHY	C	0	CORED
119	FC 334	C	750.00	751.45	1.45	CO		C	0	CORED
120	FC 334	C	751.45	751.85	.40	ST	CRB HRD	C	0	CORED
121	FC 334	C	751.85	752.90	1.05	CO		C	0	CORED
122	FC 334	C	752.90	753.20	.30	SH	CRB BNY		0	CORED
123	FC 334	C	753.20	755.20	2.00	ST	LIT GRY HRD		0	CORED
124	FC 334	C	755.20	757.10	1.90	SH	CLY MED HRD		0	CORED
125	FC 334	C	757.10	757.35	.25	CL	SFT		0	CORED
126	FC 334	C	757.35	757.90	.55	SH	CRB CLY MED SFT		0	CORED
127	FC 334	C	757.90	760.80	2.90	SH	SDY MED HRD		0	CORED
128	FC 334	C	760.80	761.00	.20	SH	CRB SDY		0	CORED
129	FC 334	C	761.00	761.90	.90	SH	CRB CLY SFT		0	CORED
130	FC 334	C	761.90	762.50	.60	SH	CRB MED HRD		0	CORED
131	FC 334	C	762.50	763.35	.85	SH	CRB CLY MED HRD		0	CORED
132	FC 334	C	763.35	763.90	.55	ST	HRD		0	CORED
133	FC 334	C	763.90	774.35	10.45	SS	LIT GRY HRD		0	CORED
134	FC 334	C	774.35	774.70	.35	SH	CRB MED HRD		0	CORED
135	FC 334	C	774.70	778.20	3.50	SH	CRB SDY SLY		0	CORED
136	FC 334	C	778.20	778.55	.35	ST	LIT BRN HRD		0	CORED
137	FC 334	C	778.55	778.70	.15	SS	CAS HRD		0	CORED
138	FC 334	C	778.70	779.00	.30	ST	CAS HRD		0	CORED
139	FC 334	C	779.00	783.95	4.95	ST	CAS MED HRD		0	CORED
140	FC 334	C	783.95	784.25	.30	SH	CRB MED HRD		0	CORED

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
141	FC 334	C	784.25	784.50	.25	SH	SLY MED HRD		0	CORED
142	FC 334	C	784.50	784.75	.25	SH	CRB BNY HRD		0	CORED
143	FC 334	C	784.75	787.40	2.65	CO		A	0	CORED
144	FC 334	C	787.40	788.55	1.15	ST	LIT GRY MED HRD		0	CORED
145	FC 334	C	788.55	788.70	.15	CO			0	CORED RIDER
146	FC 334	C	788.70	798.00	9.30	ST	LIT GRY MED HRD		0	CORED
147	FC 334	C	798.00	798.20	.20	ST	CAS HRD		0	CORED
148	FC 334	C	798.20	798.55	.35	SS	CAS HRD		0	CORED
149	FC 334	C	798.55	811.10	12.55	ST	CAS HRD		0	CORED
150	FC 334	C	811.10	812.80	1.70	SS	LIT GRY HRD		0	CORED
151	FC 334	C	812.80	814.00	1.20	SH		BH	0	

			SEAM CODE	SAMP NO	SAMPLE DEPTH FROM	SAMPLE DEPTH TO	ANALYSIS CODE	PROXIMATE ANALYSIS %MOIS	%VOL	%CARB	%ASH	%SUL	BTU	EQUIL. MOIST	F P
1	FC 334	D		1	593.00	594.00	1	1.5	.0	.0	80.1	1.75	2015	.00	F
2	FC 334	D		1	593.00	594.00	2	.0	.0	.0	81.3	1.78	2045	.00	F
3	FC 334	D	K	2	599.50	600.00	1	7.9	.0	.0	55.9	.59	4149	.00	F
4	FC 334	D	K	2	599.50	600.00	2	.0	.0	.0	60.7	.64	4507	.00	F
5	FC 334	D		3	601.70	602.40	1	2.6	.0	.0	73.6	2.21	2439	.00	F
6	FC 334	D		3	601.70	602.40	2	.0	.0	.0	75.6	2.27	2505	.00	F
7	FC 334	D	J	4	610.50	611.00	1	2.8	.0	.0	65.1	4.06	3901	.00	F
8	FC 334	D	J	4	610.50	611.00	2	.0	.0	.0	67.0	4.18	4013	.00	F
9	FC 334	D		5	613.90	615.00	1	5.9	.0	.0	80.1	.09	297	.00	F
10	FC 334	D		5	613.90	615.00	2	.0	.0	.0	85.2	.10	316	.00	F
11	FC 334	D		6	634.50	635.00	1	6.0	.0	.0	50.4	1.00	5588	.00	F
12	FC 334	D		6	634.50	635.00	2	.0	.0	.0	53.6	1.06	5946	.00	F

			SEAM CODE	SAMP NO	SP GR	TYPE CODE	FLOAT SINK DATA % WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE
1	FC 334	G	I	1	0001601	DS	1397	.00	61.92	2.89	0	0001
2	FC 334	G	I	2	0001601	DS	0095	.00	38.96	3.11	0	0001
3	FC 334	G	I	3	0001601	DS	0355	.00	50.97	32.44	0	0001
4	FC 334	G	I	4	0001601	DS	1557	.00	65.56	5.92	0	0001
5	FC 334	G	I	5	0001601	DS	1915	.00	45.98	4.05	0	0001
6	FC 334	G	I	6	0001601	DS	0212	.00	50.69	1.07	0	0001
7	FC 334	G	I	7	0001601	DS	0151	.00	45.20	.50	0	0001
8	FC 334	G	I	8	0001601	DS	0220	.00	35.43	.59	0	0001
9	FC 334	G	I	9	0001601	DS	0460	.00	37.78	.39	0	0001
10	FC 334	G	I	0	0001601	DS	0449	.00	48.16	.60	0	0001
11	FC 334	G	I	1	0001601	DS	0804	.00	30.23	.27	0	0001
12	FC 334	G	I	2	0001601	DS	0071	.00	33.33	1.47	0	0001
13	FC 334	G	I	3	0001601	DS	0126	.00	36.48	2.60	0	0001
14	FC 334	G	I	4	0001601	DS	0027	.00	33.67	.42	0	0001
15	FC 334	G	I	5	0001601	DS	0028	.00	50.98	.00	0	0001
16	FC 334	G	I	6	0001601	DF	8603	.00	7.19	2.14	0	0001
17	FC 334	G	I	7	0001601	DF	9905	.00	6.98	1.13	0	0001

							FLOAT SINK DATA					
			SEAM CODE	SAMP NO	SP GR	TYPE CODE	% WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE
18	FC 334	G	I	8	000160	DF	9645	.00	9.51	1.56	0	0001
19	FC 334	G	I	9	000160	DF	8443	.00	7.12	3.01	0	0001
20	FC 334	G	I	0	000160	DF	8085	.00	9.88	1.42	0	0001
21	FC 334	G	I	0	000160	DF	9788	.00	10.65	.60	0	0001
22	FC 334	G	I	2	000160	DF	9849	.00	6.46	.37	0	0001
23	FC 334	G	I	0	000160	DF	9780	.00	4.29	.50	0	0001
24	FC 334	G	I	4	000160	DF	9540	.00	13.10	.37	0	0001
25	FC 334	G	I	5	000160	DF	9551	.00	7.92	.23	0	0001
26	FC 334	G	I	6	000160	DF	9196	.00	7.84	.46	0	0001
27	FC 334	G	I	7	000160	DF	9929	.00	6.54	.53	0	0001
28	FC 334	G	I	8	000160	DF	9874	.00	7.49	.49	0	0001
29	FC 334	G	I	9	000160	DF	9973	.00	5.96	.47	0	0001
30	FC 334	G	I	0	000160	DF	9972	.00	4.62	.65	0	0001

SEQ NO = 1 DRILL HOLE NO = FC 335 FORMAT = A STATE = 43 COUNTY = 015 TWP = 23S RANGE = 5E SECTION = 01

SECTION CODE = SURFACE ELEV. = 6093.00 HOW DET. = 6

N-COORD = 188494 E-COORD = 2056830 SOURCE = 2 LOCATION = 1

THK CORED = 447.60 THK N-CORED = 441.60 USGS = SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 335 FORMAT = B PROPERTY OR FARM = DRILLER = GRIMM

DRILL CONTR = DATE DRILLED = 0674

TWP OR PLACE = COMMENTS =

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 335	C	.00	441.60	441.60	SH	GRY		0	
4	FC 335	C	441.60	470.50	28.90	SH	CAS SLY MED HRD		0	CORED
5	FC 335	C	470.50	471.20	.70	ST	CAS MED HRD		0	CORED
6	FC 335	C	471.20	480.00	8.80	SH	SLY CAS MED HRD		0	CORED
7	FC 335	C	480.00	490.00	10.00	SH	SLY CAS SFT		0	CORED
8	FC 335	C	490.00	494.35	4.35	SH	SLY SDY CAS MED		0	CORED
9	FC 335	C	494.35	494.50	.15	SH	MED SFT		0	CORED BENTO
10	FC 335	C	494.50	496.60	2.10	SH	MED HRD		0	CORED BENTO
11	FC 335	C	496.60	505.65	9.05	SH	SLY SDY CAS MED		0	CORED
12	FC 335	C	505.65	505.85	.20	SH	SDY CLY MED SFT		0	CORED
13	FC 335	C	505.85	520.00	14.15	SH	SLY SDY CAS MED		0	CORED
14	FC 335	C	520.00	530.00	10.00	SH	CAS MED SFT		0	CORED
15	FC 335	C	530.00	540.00	10.00	SH	CAS MED HRD		0	CORED
16	FC 335	C	540.00	552.40	12.40	SH	SLY CAS MED HRD		0	CORED
17	FC 335	C	552.40	552.40	.00	SS		TF	0	
18	FC 335	C	552.40	552.70	.30	CL	MED SFT		0	CORED
19	FC 335	C	552.70	557.35	4.65	SH	SLY CAS MED HRD		0	CORED
20	FC 335	C	557.35	560.00	2.65	ST	CAS HRD		0	CORED
21	FC 335	C	560.00	560.35	.35	SH	SLY CAS		0	CORED
22	FC 335	C	560.35	562.80	2.45	SS	WHT HRD		0	CORED
23	FC 335	C	562.80	564.60	1.80	ST	DRK GRY MED HRD		0	CORED
24	FC 335	C	564.60	625.65	61.05	SS	CAS HRD		0	CORED
25	FC 335	C	625.65	628.85	3.20	SS	CAS HRD		0	CORED
26	FC 335	C	628.85	640.00	11.15	SS	HRD		0	CORED
27	FC 335	C	640.00	644.90	4.90	SS	CAS HRD		0	CORED
28	FC 335	C	644.90	647.25	2.35	CO		UK	0	CORED
29	FC 335	C	647.25	649.40	2.15	SH	CAS HRD		0	CORED
30	FC 335	C	649.40	649.90	.50	CO			0	CORED
31	FC 335	C	649.90	650.00	.10	SH	CRB SDY		0	CORED
32	FC 335	C	650.00	652.75	2.75	CO		UK	0	CORED
33	FC 335	C	652.75	653.00	.25	SH	CRB MED HRD		0	CORED
34	FC 335	C	653.00	653.60	.60	SH	CRB CLY MED HRD		0	CORED
35	FC 335	C	653.60	656.30	2.70	SS	WHT HRD		0	CORED
36	FC 335	C	656.30	656.95	.65	ST	WHT HRD		0	CORED

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
37	FC 335	C	656.95	657.50	.55	SH	SLY SDY MED HRD		0	CORED
38	FC 335	C	657.50	658.80	1.30	ST	CRB HRD		0	CORED
39	FC 335	C	658.80	663.60	4.80	CO		K	0	CORED
40	FC 335	C	663.60	664.00	.40	SH	GRY CLY SDY	K	0	CORED
41	FC 335	C	664.00	666.00	2.00	CO		K	0	CORED
42	FC 335	C	666.00	666.20	.20	ST	DRK GRY HRD	K	0	CORED
43	FC 335	C	666.20	666.50	.30	CO		K	0	CORED
44	FC 335	C	666.50	667.75	1.25	SH	CRB MED HRD		0	CORED
45	FC 335	C	667.75	670.00	2.25	SS	CAS HRD		0	CORED
46	FC 335	C	670.00	671.50	1.50	SS	CAS HRD SHY		0	CORED
47	FC 335	C	671.50	673.70	2.20	SH	CRB SDY HRD		0	CORED
48	FC 335	C	673.70	674.00	.30	BO		J	0	CORED
49	FC 335	C	674.00	677.20	3.20	CO		J	0	CORED
50	FC 335	C	677.20	677.30	.10	ST		J	0	CORED
51	FC 335	C	677.30	678.10	.80	CO		J	0	CORED
52	FC 335	C	678.10	679.00	.90	SH	CRB COL BNY		0	CORED
53	FC 335	C	679.00	680.00	1.00	SS	HRD SHY		0	CORED
54	FC 335	C	680.00	682.80	2.80	SS	CAS HRD		0	CORED
55	FC 335	C	682.80	684.20	1.40	SH	CRB MED HRD		0	CORED
56	FC 335	C	684.20	684.85	.65	SH	SDY HRD		0	CORED
57	FC 335	C	684.85	685.45	.60	BO			0	CORED
58	FC 335	C	685.45	686.80	1.35	SH	CRB MED HRD		0	CORED
59	FC 335	C	686.80	690.30	3.50	CO		UI	0	
60	FC 335	C	690.30	691.30	1.00	SH			0	
61	FC 335	C	691.30	703.80	12.50	CO		LI	0	
62	FC 335	C	703.80	704.35	.55	SH	CRB MED HRD		0	CORED
63	FC 335	C	704.35	705.25	.90	SH	CRB CLY MED HRD		0	CORED
64	FC 335	C	705.25	705.55	.30	SH	CLY MED SFT		0	CORED
65	FC 335	C	705.55	705.85	.30	CO			0	CORED
66	FC 335	C	705.85	706.15	.30	SH	SLY MED HRD		0	CORED
67	FC 335	C	706.15	707.50	1.35	SH	SDY MED HRD		0	CORED
68	FC 335	C	707.50	708.00	.50	SH	CLY MED SFT		0	CORED
69	FC 335	C	708.00	710.00	2.00	SH	SDY MED HRD		0	CORED
70	FC 335	C	710.00	711.05	1.05	SH	SDY SLY MED HRD		0	CORED
71	FC 335	C	711.05	714.10	3.05	SH	SLY MED SFT		0	CORED
72	FC 335	C	714.10	720.00	5.90	ST	SDY HRD		0	CORED
73	FC 335	C	720.00	722.00	2.00	SH	CRB SDY MED HRD		0	CORED
74	FC 335	C	722.00	724.00	2.00	SS	HRD		0	CORED
75	FC 335	C	724.00	726.00	2.00	SH	SDY MED HRD		0	CORED
76	FC 335	C	726.00	728.00	2.00	SS	HRD		0	CORED
77	FC 335	C	728.00	730.00	2.00	SH	SDY MED HRD		0	CORED
78	FC 335	C	730.00	734.00	4.00	SS	CRB HRD		0	CORED
79	FC 335	C	734.00	734.70	.70	SH	CRB MED HRD		0	CORED
80	FC 335	C	734.70	736.00	1.30	SS	CRB HRD		0	CORED
81	FC 335	C	736.00	742.00	6.00	SH	CRB MED HRD		0	CORED
82	FC 335	C	742.00	760.00	18.00	SS	SHY HRD		0	CORED
83	FC 335	C	760.00	779.40	19.40	SS	MED HRD		0	CORED
84	FC 335	C	779.40	780.00	.60	CO		G	0	CORED
85	FC 335	C	780.00	785.50	5.50	CO		G	0	CORED LOSS
86	FC 335	C	785.50	790.00	4.50	CO	PRO B		0	LOSS CORED
87	FC 335	C	790.00	790.20	.20	SS	CAS HRD		0	CORED

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
88	FC 335	C	790.20	792.00	1.80	SH	CRB COL MED HRD		0	CORED
89	FC 335	C	792.00	798.40	6.40	SH	CRB COL SDY		0	CORED
90	FC 335	C	798.40	811.60	13.20	SS	CAS HRD		0	CORED
91	FC 335	C	811.60	812.30	.70	SH	CAS CRB MED HRD		0	CORED
92	FC 335	C	812.30	812.90	.60	SS	CAS HRD		0	CORED
93	FC 335	C	812.90	817.50	4.60	SH	CAS CRB MED HRD		0	CORED
94	FC 335	C	817.50	820.00	2.50	CO		D	0	CORED
95	FC 335	C	820.00	820.50	.50	SH	CRB		0	CORED
96	FC 335	C	820.50	821.05	.55	SS	GRY		0	CORED
97	FC 335	C	821.05	821.20	.15	SH	CRB		0	CORED
98	FC 335	C	821.20	824.40	3.20	CO		C	0	CORED
99	FC 335	C	824.40	824.70	.30	SH	CRB	C	0	CORED
100	FC 335	C	824.70	826.20	1.50	CO		C	0	CORED
101	FC 335	C	826.20	826.60	.40	SH	CRB SLY	C	0	CORED
102	FC 335	C	826.60	828.25	1.65	CO		C	0	CORED
103	FC 335	C	828.25	828.60	.35	SH	CRB		0	CORED
104	FC 335	C	828.60	829.85	1.25	SS	GRY		0	CORED
105	FC 335	C	829.85	830.65	.80	SH	GRY SFT		0	CORED
106	FC 335	C	830.65	833.30	2.65	SS	GRY HRD		0	CORED
107	FC 335	C	833.30	833.95	.65	SH	CRB		0	CORED
108	FC 335	C	833.95	835.25	1.30	SS	GRY HRD		0	CORED
109	FC 335	C	835.25	835.50	.25	SH	BLK		0	CORED
110	FC 335	C	835.50	836.25	.75	SS	HRD		0	CORED
111	FC 335	C	836.25	838.20	1.95	SH	CRB SFT		0	CORED
112	FC 335	C	838.20	838.55	.35	CO			0	CORED
113	FC 335	C	838.55	839.50	.95	SH	CRB BLK		0	CORED
114	FC 335	C	839.50	840.00	.50	SS	DRK GRY		0	CORED
115	FC 335	C	840.00	843.70	3.70	ST			0	CORED
116	FC 335	C	843.70	845.00	1.30	SS	SLY		0	CORED
117	FC 335	C	845.00	847.70	2.70	SH	SLY		0	CORED
118	FC 335	C	847.70	850.00	2.30	ST	SHY		0	CORED
119	FC 335	C	850.00	850.30	.30	ST	LIT GRY		0	CORED
120	FC 335	C	850.30	850.90	.60	SH	DRK BLK		0	CORED
121	FC 335	C	850.90	852.70	1.80	SS	GRY		0	CORED
122	FC 335	C	852.70	854.85	2.15	SH	CRB BLK		0	CORED
123	FC 335	C	854.85	855.00	.15	CO			0	CORED
124	FC 335	C	855.00	857.80	2.80	SH	CRB		0	CORED
125	FC 335	C	857.80	860.00	2.20	ST	GRY		0	CORED
126	FC 335	C	860.00	861.00	1.00	SH	CRB		0	CORED
127	FC 335	C	861.00	873.20	12.20	CO		A	0	CORED
128	FC 335	C	873.20	874.40	1.20	SH	CRB		0	CORED
129	FC 335	C	874.40	888.70	14.30	SS	GRY HRD		0	CORED
130	FC 335	C	888.70	889.20	.50	SS	GRY HRD BH		0	CORED

			SEAM CODE	SAMP NO	SAMPLE DEPTH FROM	TO	ANALYSIS CODE	PROXIMATE ANALYSIS %MOIS	%VOL	%CARB	%ASH	%SUL	BTU	EQUIL. MOIST	F P
1	FC 335	D		1	686.00	686.80	1	4.7	.0	.0	81.4	.31	1034	.00	F
2	FC 335	D		1	686.00	686.80	2	.0	.0	.0	85.4	.33	1085	.00	F
3	FC 335	D		3	703.80	704.35	1	3.8	.0	.0	51.9	2.33	5857	.00	F

4	FC 335	D		2	703.80	704.35	2	.0	.0	.0	53.9	2.42	6089	.00	F

F L O A T S I N K D A T A

			SEAM CODE	SAMP NO	SP GR	TYPE CODE	% WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE
1	FC 335	G	I	1	0001601	DF	9926	.00	6.42	.58	0	0001
2	FC 335	G	I	2	0001601	DF	9930	.00	8.02	.43	0	0001
3	FC 335	G	I	3	0001601	DF	8689	.00	14.58	.35	0	0001
4	FC 335	G	I	4	0001601	DF	9877	.00	4.64	.38	0	0001
5	FC 335	G	I	5	0001601	DF	9585	.00	7.69	.36	0	0001
6	FC 335	G	I	6	0001601	DF	9889	.00	6.15	.45	0	0001
7	FC 335	G	I	7	0001601	DF	9879	.00	8.06	.62	0	0001
8	FC 335	G	I	8	0001601	DF	9968	.00	4.48	.67	0	0001
9	FC 335	G	I	9	0001601	DF	9955	.00	5.05	.63	0	0001
10	FC 335	G	I	0	0001601	DS	0074	.00	.00	.00	0	0001
11	FC 335	G	I	1	0001601	DS	0070	.00	37.65	.58	0	0001
12	FC 335	G	I	2	0001601	DS	1311	.00	38.09	.24	0	0001
13	FC 335	G	I	3	0001601	DS	0123	.00	35.72	.88	0	0001
14	FC 335	G	I	4	0001601	DS	0415	.00	48.79	.52	0	0001
15	FC 335	G	I	5	0001601	DS	0111	.00	36.48	.77	0	0001
16	FC 335	G	I	6	0001601	DS	0121	.00	38.49	1.02	0	0001
17	FC 335	G	I	0	0001601	DS	0032	.00	49.53	.00	0	0001
18	FC 335	G	I	0	0001601	DS	0045	.00	23.71	1.79	0	0001

SEQ NO = 1 DRILL HOLE NO = FC 336 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 30

SECTION CODE = SURFACE ELEV. = 6040.28 HOW DET. = 6

N-COORD = 195711 E-COORD = 2058546 SOURCE = 2 LOCATION = 1

THK CORED = 450.00 THK N-CORED = 521.00 USGS = WALKER FLAT SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 336 FORMAT = B PROPERTY OR FARM = DRILLER = KRUG

DRILL CONTR = DATE DRILLED = 0674

TWP OR PLACE = COMMENTS =

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 336	C	.00	521.00	521.00	SH			0	
4	FC 336	C	521.00	571.00	50.00	SH	SLY HRD CAS		0	CORED
5	FC 336	C	571.00	580.65	9.65	SH	SLY SDY CAS		0	CORED
6	FC 336	C	580.65	581.00	.35	ST	SDY SHY CAS		0	CORED
7	FC 336	C	581.00	584.70	3.70	SH	SDY CAS SLY		0	CORED
8	FC 336	C	584.70	584.85	.15	SH			0	CORED BENTO
9	FC 336	C	584.85	601.75	16.90	SH	SDY SLY CAS		0	CORED
10	FC 336	C	601.75	603.25	1.50	ST	SDY SHY MED HRD		0	CORED
11	FC 336	C	603.25	616.35	13.10	SH	SLY SDY CAS		0	CORED
12	FC 336	C	616.35	616.80	.45	ST	SDY SHY HRD		0	CORED
13	FC 336	C	616.80	620.80	4.00	SH	SLY SDY CAS		0	CORED
14	FC 336	C	620.80	621.70	.90	ST	SDY SLY SHY		0	CORED
15	FC 336	C	621.70	630.50	8.80	SH	SLY SDY CAS		0	CORED
16	FC 336	C	630.50	631.45	.95	ST	SLY SDY HRD		0	CORED
17	FC 336	C	631.45	635.15	3.70	SH	SLY SDY CAS		0	CORED
18	FC 336	C	635.15	650.30	15.15	ST	SDY HRD	TF	0	CORED
19	FC 336	C	650.30	650.40	.10	SH			0	CORED BENTO
20	FC 336	C	650.40	673.50	23.10	ST	SDY HRD		0	CORED
21	FC 336	C	673.50	713.65	40.15	SS	CAS HRD		0	CORED
22	FC 336	C	713.65	713.95	.30	SH	SDY MED HRD		0	CORED
23	FC 336	C	713.95	714.30	.35	SS	CAS HRD		0	CORED
24	FC 336	C	714.30	714.65	.35	SS	SHY		0	CORED
25	FC 336	C	714.65	720.30	5.65	SS	CAS HRD		0	CORED
26	FC 336	C	720.30	720.55	.25	SS	SHY		0	CORED
27	FC 336	C	720.55	720.80	.25	SS	CAS HRD		0	CORED
28	FC 336	C	720.80	721.20	.40	SS	SHY		0	CORED
29	FC 336	C	721.20	722.50	1.30	SS	CAS HRD		0	CORED
30	FC 336	C	722.50	722.75	.25	SS	SHY		0	CORED
31	FC 336	C	722.75	723.00	.25	SS	CAS HRD		0	CORED
32	FC 336	C	723.00	740.40	17.40	SS	SLY CAS HRD		0	CORED
33	FC 336	C	740.40	740.80	.40	SH	SDY SLY		0	CORED
34	FC 336	C	740.80	743.00	2.20	SS	SLY CAS HRD		0	CORED
35	FC 336	C	743.00	743.40	.40	SH	CRB SLY		0	CORED
36	FC 336	C	743.40	744.10	.70	CO			0	CORED

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
37	FC 336	C	744.10	744.20	.10	CO	BNY		0	CORED
38	FC 336	C	744.20	744.30	.10	CO			0	CORED
39	FC 336	C	744.30	744.60	.30	SH	CRB SLY MED HRD		0	CORED
40	FC 336	C	744.60	745.00	.40	BO			0	CORED
41	FC 336	C	745.00	748.85	3.85	SS	LIT GRY HRD		0	CORED
42	FC 336	C	748.85	750.00	1.15	SH	SLY GRY		0	CORED
43	FC 336	C	750.00	750.80	.80	SH	SLY SDY		0	CORED
44	FC 336	C	750.80	756.25	5.45	CO		K	0	CORED
45	FC 336	C	756.25	756.45	.20	ST	LIT GRY HRD		0	CORED
46	FC 336	C	756.45	756.70	.25	CL	SFT		0	CORED BENTO
47	FC 336	C	756.70	756.80	.10	ST	CLY HRD		0	CORED
48	FC 336	C	756.80	756.90	.10	SH	CRB SLY MED HRD		0	CORED
49	FC 336	C	756.90	758.05	1.15	CO			0	CORED
50	FC 336	C	758.05	758.85	.80	SH	CRB SLY MED HRD		0	CORED
51	FC 336	C	758.85	761.50	2.65	ST	SLY HRD		0	CORED
52	FC 336	C	761.50	762.30	.80	SH	CRB MED HRD		0	CORED
53	FC 336	C	762.30	767.10	4.80	SS	CAS HRD		0	CORED
54	FC 336	C	767.10	768.05	.95	ST	CAS HRD		0	CORED
55	FC 336	C	768.05	770.80	2.75	SH	SDY CAS MED HRD		0	CORED
56	FC 336	C	770.80	771.85	1.05	CO		J	0	CORED
57	FC 336	C	771.85	771.95	.10	ST	LIT GRY MED HRD	J	0	CORED
58	FC 336	C	771.95	774.75	2.80	CO		J	0	CORED
59	FC 336	C	774.75	777.30	2.55	SH	CLY MED HRD		0	CORED
60	FC 336	C	777.30	778.20	.90	ST	CLY MED HRD		0	CORED
61	FC 336	C	778.20	778.40	.20	SH	CRB MED HRD		0	CORED
62	FC 336	C	778.40	784.60	6.20	CO		UI	0	CORED
63	FC 336	C	784.60	784.90	.30	SH	CRB MED HRD		0	CORED
64	FC 336	C	784.90	785.05	.15	ST	CAS HRD		0	CORED
65	FC 336	C	785.05	785.85	.80	CO			0	CORED
66	FC 336	C	785.85	786.25	.40	SH	CRB MED HRD		0	CORED
67	FC 336	C	786.25	787.60	1.35	SH	SLY MED HRD		0	CORED
68	FC 336	C	787.60	789.70	2.10	ST	LIT GRY HRD		0	CORED
69	FC 336	C	789.70	790.30	.60	SH	CRB SLY MED HRD		0	CORED
70	FC 336	C	790.30	800.30	10.00	CO		LI	0	CORED
71	FC 336	C	800.30	801.75	1.45	SH	CRB BNY		0	CORED
72	FC 336	C	801.75	802.15	.40	ST	CRB HRD		0	CORED
73	FC 336	C	802.15	803.60	1.45	ST	GRY HRD		0	CORED
74	FC 336	C	803.60	804.25	.65	SH	CLY MED HRD		0	CORED
75	FC 336	C	804.25	805.50	1.25	ST	GRY HRD		0	CORED
76	FC 336	C	805.50	805.85	.35	SH	BLK HRD		0	CORED
77	FC 336	C	805.85	812.85	7.00	SH	CLY SDY MED HRD		0	CORED
78	FC 336	C	812.85	813.35	.50	SH	BRN MED HRD		0	CORED
79	FC 336	C	813.35	814.10	.75	SH	CLY SDY MED HRD		0	CORED
80	FC 336	C	814.10	818.45	4.35	ST	LIT GRY HRD		0	CORED
81	FC 336	C	818.45	819.55	1.10	SH	SLY SDY MED HRD		0	CORED
82	FC 336	C	819.55	820.20	.65	SH	BLK MED SFT		0	CORED
83	FC 336	C	820.20	820.65	.45	ST	LIT BRN HRD		0	CORED
84	FC 336	C	820.65	821.85	1.20	ST	LIT GRY HRD		0	CORED
85	FC 336	C	821.85	822.35	.50	SH	SLY CLY		0	CORED
86	FC 336	C	822.35	823.25	.90	SH	CLY MED HRD		0	CORED
87	FC 336	C	823.25	827.40	4.15	ST	CAS HRD		0	CORED

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
88	FC 336	C	827.40	827.60	.20	SH	SLY HRD		0	CORED
89	FC 336	C	827.60	828.30	.70	SH	SLY CLY MED SFT		0	CORED
90	FC 336	C	828.30	829.85	1.55	SH	CLY MED HRD		0	CORED
91	FC 336	C	829.85	830.70	.85	ST	MED BRN HRD		0	CORED
92	FC 336	C	830.70	831.80	1.10	ST	CAS MED HRD		0	CORED
93	FC 336	C	831.80	832.10	.30	SH	SLY CAS MED HRD		0	CORED
94	FC 336	C	832.10	832.45	.35	ST	CAS MED HRD		0	CORED
95	FC 336	C	832.45	833.15	.70	SH	SLY CAS MED HRD		0	CORED
96	FC 336	C	833.15	834.60	1.45	SH	CLY SLY MED HRD		0	CORED
97	FC 336	C	834.60	835.15	.55	ST	CAS HRD		0	CORED
98	FC 336	C	835.15	836.30	1.15	SH	CLY SLY MED HRD		0	CORED
99	FC 336	C	836.30	836.90	.60	SH	CRB CLY MED HRD		0	CORED
100	FC 336	C	836.90	838.05	1.15	ST	LIT GRY HRD		0	CORED
101	FC 336	C	838.05	839.55	1.50	SH	CRB CLY MED HRD		0	CORED
102	FC 336	C	839.55	839.80	.25	SH	CLY MED SFT		0	CORED
103	FC 336	C	839.80	840.50	.70	SH	CLY MED HRD		0	CORED
104	FC 336	C	840.50	840.70	.20	SH	CLY MED SFT		0	CORED
105	FC 336	C	840.70	841.00	.30	SH	CRB CLY MED HRD		0	CORED
106	FC 336	C	841.00	842.20	1.20	SH	CLY CRB MED SFT		0	CORED
107	FC 336	C	842.20	843.45	1.25	SH	CLY SFT		0	CORED
108	FC 336	C	843.45	844.40	.95	ST	CAS HRD		0	CORED
109	FC 336	C	844.40	847.40	3.00	SH	CAS SLY MED HRD		0	CORED
110	FC 336	C	847.40	848.55	1.15	SH	CLY SFT		0	CORED
111	FC 336	C	848.55	849.90	1.35	SH	CAS SLY MED HRD		0	CORED
112	FC 336	C	849.90	851.00	1.10	ST	CAS HRD		0	CORED
113	FC 336	C	851.00	851.40	.40	ST	SDY CAS HRD		0	CORED
114	FC 336	C	851.40	851.90	.50	SH	SLY MED HRD		0	CORED
115	FC 336	C	851.90	853.00	1.10	SH	CLY		0	CORED
116	FC 336	C	853.00	853.35	.35	SH	CRB MED HRD		0	CORED
117	FC 336	C	853.35	853.55	.20	CO		G	0	CORED
118	FC 336	C	853.55	853.75	.20	ST	LIT BRN HRD	G	0	CORED
119	FC 336	C	853.75	859.75	6.00	CO		G	0	CORED
120	FC 336	C	859.75	860.15	.40	SH	CRB MED HRD		0	CORED
121	FC 336	C	860.15	860.65	.50	SH	CRB MED SFT		0	CORED
122	FC 336	C	860.65	861.25	.60	SS	LIT GRY HRD		0	CORED
123	FC 336	C	861.25	861.70	.45	ST	SHY		0	CORED
124	FC 336	C	861.70	862.65	.95	SH	SDY SLY MED HRD		0	CORED
125	FC 336	C	862.65	863.25	.60	SH	CRB MED HRD		0	CORED
126	FC 336	C	863.25	863.75	.50	CO			0	CORED
127	FC 336	C	863.75	864.15	.40	SH	CRB MED SFT		0	CORED
128	FC 336	C	864.15	864.75	.60	CO			0	CORED
129	FC 336	C	864.75	865.15	.40	SH	CRB MED HRD		0	CORED
130	FC 336	C	865.15	866.20	1.05	SH	CLY MED SFT		0	CORED
131	FC 336	C	866.20	867.65	1.45	ST	LIT GRY HRD		0	CORED
132	FC 336	C	867.65	868.65	1.00	SH	SLY SDY MED HRD		0	CORED
133	FC 336	C	868.65	868.90	.25	SH	SLY CLY		0	CORED
134	FC 336	C	868.90	870.10	1.20	SH	SLY SDY MED HRD		0	CORED
135	FC 336	C	870.10	871.00	.90	ST	CAS HRD		0	CORED
136	FC 336	C	871.00	872.60	1.60	SS	CAS HRD SHY		0	CORED
137	FC 336	C	872.60	876.00	3.40	SH	CAS MED HRD		0	CORED
138	FC 336	C	876.00	877.80	1.80	SS	CAS HRD SHY		0	CORED

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
139	FC 336	C	877.80	892.70	14.90	SS	CAS HRD		0	CORED
140	FC 336	C	892.70	893.00	.30	SH	DRK GRY HRD		0	CORED
141	FC 336	C	893.00	895.00	2.00	SH	CRB COL		0	CORED
142	FC 336	C	895.00	897.20	2.20	CO		D	0	CORED
143	FC 336	C	897.20	898.40	1.20	SH	GRY SDY CLY		0	CORED
144	FC 336	C	898.40	898.55	.15	SH	CRB CLY		0	CORED
145	FC 336	C	898.55	904.10	5.55	CO		C	0	CORED
146	FC 336	C	904.10	904.60	.50	SH	CRB COL		0	CORED
147	FC 336	C	904.60	906.75	2.15	SH	CLY SDY MED HRD		0	CORED
148	FC 336	C	906.75	909.00	2.25	SH	DRK GRY HRD		0	CORED
149	FC 336	C	909.00	911.00	2.00	SH	SDY MED GRY		0	CORED
150	FC 336	C	911.00	917.90	6.90	SH	CRB MED HRD		0	CORED
151	FC 336	C	917.90	920.10	2.20	SS	CAS HRD		0	CORED
152	FC 336	C	920.10	921.00	.90	SH	GRY CRB SFT		0	CORED
153	FC 336	C	921.00	931.00	10.00	SH	SDY MED HRD		0	CORED
154	FC 336	C	931.00	971.00	40.00	SS	CAS HRD BH		0	CORED

			SEAM CODE	SAMP NO	SAMPLE DEPTH FROM	SAMPLE DEPTH TO	ANALYSIS CODE	PROXIMATE ANALYSIS %MOIS	%VOL	%CARB	%ASH	%SUL	BTU	EQUIL. MOIST	F P
1	FC 336	D		1	770.00	770.80	1	1.6	.0	.0	75.4	2.55	2443	.00	F
2	FC 336	D		1	770.00	770.80	2	.0	.0	.0	76.6	2.59	2482	.00	F
3	FC 336	D		2	774.75	776.00	1	4.2	.0	.0	89.2	.05	359	.00	F
4	FC 336	D		2	774.75	776.00	2	.0	.0	.0	93.1	.05	375	.00	F
5	FC 336	D		3	777.30	778.40	1	3.3	.0	.0	80.5	.20	376	.00	F
6	FC 336	D		3	777.30	778.40	2	.0	.0	.0	83.3	.21	389	.00	F
7	FC 336	D	I	7	784.60	785.05	1	3.4	.0	.0	73.8	.33	1995	.00	F
8	FC 336	D	I	8	784.60	785.05	2	.0	.0	.0	76.4	.34	2065	.00	F
9	FC 336	D	I	9	789.70	790.30	1	1.2	.0	.0	86.7	.28	418	.00	F
10	FC 336	D	I	0	789.70	790.30	2	.0	.0	.0	87.7	.28	423	.00	F
11	FC 336	D		1	800.30	801.00	1	4.1	.0	.0	43.5	1.87	7338	.00	F
12	FC 336	D		1	800.30	801.00	2	.0	.0	.0	45.3	1.95	7654	.00	F

			SEAM CODE	SAMP NO	SP GR	TYPE CODE	FLOAT SINK DATA % WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE
1	FC 336	G	I	1	000160	DF	7105	.00	11.54	1.18	0	0001
2	FC 336	G	I	2	000160	DF	9294	.00	8.71	.78	0	0001
3	FC 336	G	I	3	000160	DF	9447	.00	7.54	.51	0	0001
4	FC 336	G	I	4	000160	DF	9778	.00	6.03	.60	0	0001
5	FC 336	G	I	5	000160	DF	9945	.00	8.57	.53	0	0001
6	FC 336	G	I	6	000160	DF	9839	.00	7.98	.53	0	0001
7	FC 336	G	I	7	000160	DF	9956	.00	7.96	.43	0	0001
8	FC 336	G	I	8	000160	DF	9932	.00	6.91	.52	0	0001
9	FC 336	G	I	9	000160	DF	9149	.00	6.79	.50	0	0001
10	FC 336	G	I	0	000160	DF	9927	.00	6.04	.92	0	0001
11	FC 336	G	I	1	000160	DS	2895	.00	56.74	2.39	0	0001
12	FC 336	G	I	2	000160	DS	0706	.00	47.04	.58	0	0001

							FLOAT SINK DATA					
			SEAM CODE	SAMP NO	SP GR	TYPE CODE	% WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE
13	FC 336	G	I	3	0001601	DS	0553	.00	55.78	.55	0	0001
14	FC 336	G	I	4	0001601	DS	0222	.00	47.65	.63	0	0001
15	FC 336	G	I	5	0001601	DS	0055	.00	42.95	.91	0	0001
16	FC 336	G	I	6	0001601	DS	0161	.00	46.24	1.59	0	0001
17	FC 336	G	I	7	0001601	DS	0044	.00	.00	.00	0	0001
18	FC 336	G	I	8	0001601	DS	0068	.00	38.15	1.18	0	0001
19	FC 336	G	I	9	0001601	DS	0851	.00	32.40	6.04	0	0001
20	FC 336	G	I	2	0001601	DS	0073	.00	49.09	4.34	0	0001

SEQ NO = 1 DRILL HOLE NO = FC 337 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 5E SECTION = 36

SECTION CODE = SURFACE ELEV. = 6062.54 HOW DET. = 6

N-COORD = 190802 E-COORD = 2056955 SOURCE = 2 LOCATION = 1

THK CORED = 466.00 THK N-CORED = 432.00 USGS = SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 337 FORMAT = B PROPERTY OR FARM = DRILLER = ANDERSON

DRILL CONTR = DATE DRILLED = 0674

TWP OR PLACE = COMMENTS =

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 337	C	.00	62.00	62.00	SS	BRN		0	
4	FC 337	C	62.00	64.00	2.00	GR			0	
5	FC 337	C	64.00	67.20	3.20	SH	BRN SDY		0	
6	FC 337	C	67.20	408.60	341.40	SH	GRY		0	
7	FC 337	C	408.60	410.45	1.85	SH	GRY SDY		0	
9	FC 337	C	410.45	432.00	21.55	SH	GRY		0	CORED
10	FC 337	C	432.00	442.00	10.00	SH	CRB CAS SLY		0	CORED
12	FC 337	C	442.00	448.60	6.60	SH	SLY CAS MED HRD		0	CORED
13	FC 337	C	448.60	449.10	.50	ST	CAS MED HRD		0	CORED
14	FC 337	C	449.10	532.00	82.90	SH	SLY CAS MED HRD		0	CORED
15	FC 337	C	532.00	552.00	20.00	SH	CAS SFT		0	CORED
16	FC 337	C	552.00	572.00	20.00	SH	SLY CAS		0	CORED
17	FC 337	C	572.00	579.45	7.45	SH	SLY SDY CAS MED		0	CORED
18	FC 337	C	579.45	579.75	.30	SH	CAS HRD		0	CORED
19	FC 337	C	579.75	585.15	5.40	SH	SLY SDY CAS MED		0	CORED
20	FC 337	C	585.15	592.00	6.85	ST	CAS HRD		0	CORED
21	FC 337	C	592.00	602.00	10.00	ST	CAS MED HRD		0	CORED
22	FC 337	C	602.00	603.10	1.10	ST	CAS HRD		0	CORED
23	FC 337	C	603.10	603.10	.00	SS		TF	0	
24	FC 337	C	603.10	606.20	3.10	SS	CAS HRD		0	CORED
25	FC 337	C	606.20	606.40	.20	ST	CRB HRD		0	CORED
26	FC 337	C	606.40	663.20	56.80	SS	CAS HRD		0	CORED
27	FC 337	C	663.20	670.60	7.40	SS	LIT GRY HRD		0	CORED
28	FC 337	C	670.60	671.80	1.20	SS	CAS HRD		0	CORED
29	FC 337	C	671.80	675.60	3.80	CO		UK	0	CORED
30	FC 337	C	675.60	675.70	.10	ST	LIT GRY HRD		0	CORED
31	FC 337	C	675.70	678.95	3.25	CO		UK	0	CORED
32	FC 337	C	678.95	679.15	.20	SH	CRB BNY SDY		0	CORED
33	FC 337	C	679.15	680.40	1.25	ST	LIT GRY HRD		0	CORED
34	FC 337	C	680.40	685.55	5.15	SS	LIT GRY HRD		0	CORED
35	FC 337	C	685.55	686.55	1.00	SH	CRB SDY SLY MED		0	CORED
36	FC 337	C	686.55	691.20	4.65	CO		K	0	CORED
37	FC 337	C	691.20	692.00	.80	SH	COL MED HRD	K	0	CORED
38	FC 337	C	692.00	693.80	1.80	CO		K	0	CORED

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
39	FC 337	C	693.80	694.80	1.00	SH	CRB COL MED HRD		0	CORED
40	FC 337	C	694.80	695.20	.40	ST	SDY CRB COL		0	CORED
41	FC 337	C	695.20	699.00	3.80	SS	CRB COL HRD		0	CORED
42	FC 337	C	699.00	702.50	3.50	SH	CRB COL HRD		0	CORED
43	FC 337	C	702.50	706.65	4.15	CO		J	0	CORED
44	FC 337	C	706.65	707.00	.35	SH	CRB COL MED HRD		0	CORED
45	FC 337	C	707.00	708.75	1.75	SS	HRD		0	CORED
46	FC 337	C	708.75	709.40	.65	CO	SHY CLY		0	CORED
47	FC 337	C	709.40	709.95	.55	SH	CRB COL MED HRD		0	CORED
48	FC 337	C	709.95	711.00	1.05	ST	MED HRD		0	CORED
49	FC 337	C	711.00	711.70	.70	SH	CRB COL SDY MED		0	CORED
50	FC 337	C	711.70	715.50	3.80	CO		UI	0	
51	FC 337	C	715.50	717.80	2.30	SH			0	
52	FC 337	C	717.80	728.10	10.30	CO		LI	0	
53	FC 337	C	728.10	728.70	.60	SH	CRB MED HRD		0	CORED
54	FC 337	C	728.70	728.95	.25	SH	MED HRD DRK GRY		0	CORED
55	FC 337	C	728.95	731.00	2.05	SH	SDY MED HRD		0	CORED
56	FC 337	C	731.00	733.00	2.00	ST	MED HRD		0	CORED
57	FC 337	C	733.00	753.00	20.00	ST	SDY MED HRD		0	CORED
58	FC 337	C	753.00	761.00	8.00	SS	HRD		0	CORED
59	FC 337	C	761.00	770.45	9.45	SS	MED HRD		0	CORED
60	FC 337	C	770.45	771.00	.55	ST	CRB COL SDY		0	CORED
61	FC 337	C	771.00	777.00	6.00	ST	SDY CRB MED HRD		0	CORED
62	FC 337	C	777.00	781.00	4.00	SS	CRB COL HRD		0	CORED
63	FC 337	C	781.00	800.70	19.70	SS	HRD		0	CORED
64	FC 337	C	800.70	800.90	.20	SH	CRB COL MED SFT		0	CORED
65	FC 337	C	800.90	801.00	.10	SS	HRD		0	CORED
66	FC 337	C	801.00	801.10	.10	SS	CRB COL HRD		0	CORED
67	FC 337	C	801.10	806.55	5.45	CO		G	0	CORED
68	FC 337	C	806.55	808.10	1.55	SH	CRB COL MED HRD		0	CORED
69	FC 337	C	808.10	809.00	.90	SS	CRB COL HRD		0	CORED
70	FC 337	C	809.00	811.00	2.00	SH	CRB COL MED SFT		0	CORED
71	FC 337	C	811.00	819.00	8.00	SH	CRB COL MED HRD		0	CORED
72	FC 337	C	819.00	821.00	2.00	SS	HRD		0	CORED
73	FC 337	C	821.00	831.00	10.00	SS	CAS HRD		0	CORED
74	FC 337	C	831.00	839.80	8.80	SS	COL HRD		0	CORED
75	FC 337	C	839.80	841.25	1.45	SH	CRB COL MED HRD		0	CORED
76	FC 337	C	841.25	841.40	.15	CO		D	0	CORED
77	FC 337	C	841.40	841.85	.45	SH	CRB COL MED HRD	D	0	CORED
78	FC 337	C	841.85	844.50	2.65	CO		D	0	CORED
79	FC 337	C	844.50	845.70	1.20	SH	CRB COL MED SFT		0	CORED
80	FC 337	C	845.70	347.00	1.30	CO		C	0	CORED
81	FC 337	C	847.00	848.10	1.10	CO	SHY	C	0	CORED
82	FC 337	C	848.10	850.20	2.10	CO		C	0	CORED
83	FC 337	C	850.20	850.80	.60	SH	CRB COL MED SFT	C	0	CORED
84	FC 337	C	850.80	851.35	.55	CO		C	0	CORED
85	FC 337	C	851.35	853.60	2.25	SH	CRB COL MED HRD		0	CORED
86	FC 337	C	853.60	855.00	1.40	SS	HRD		0	CORED
87	FC 337	C	855.00	858.10	3.10	SS	SHY		0	CORED
88	FC 337	C	858.10	861.00	2.90	SH	CRB COL MED HRD		0	CORED
89	FC 337	C	861.00	861.35	.35	SH	CRB MED HRD		0	CORED

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
90	FC 337	C	861.35	861.95	.60	SH	SDY MED HRD		0	CORED
91	FC 337	C	861.95	863.45	1.50	ST	LIT GRY HRD		0	CORED
92	FC 337	C	863.45	864.00	.55	SH	SLY MED HRD		0	CORED
93	FC 337	C	864.00	865.30	1.30	SH	CLY MED SFT		0	CORED
94	FC 337	C	865.30	868.25	2.95	SH	CRB MED HRD		0	CORED
95	FC 337	C	868.25	868.65	.40	ST	LIT GRY HRD		0	CORED
96	FC 337	C	868.65	869.40	.75	SH	SDY SLY		0	CORED
97	FC 337	C	869.40	870.20	.80	ST	CAS HRD		0	CORED
98	FC 337	C	870.20	870.80	.60	SH	SDY SLY MED HRD		0	CORED
99	FC 337	C	870.80	871.00	.20	ST	DRK GRY HRD		0	CORED
100	FC 337	C	871.00	871.25	.25	ST	LIT GRY HRD		0	CORED
101	FC 337	C	871.25	872.40	1.15	SS	HRD		0	CORED
102	FC 337	C	872.40	873.00	.60	SS	CAS HRD		0	CORED
103	FC 337	C	873.00	873.20	.20	SS	HRD		0	CORED
104	FC 337	C	873.20	878.60	5.40	SS	CAS HRD		0	CORED
105	FC 337	C	878.60	881.50	2.90	SS	LIT GRY HRD		0	CORED
106	FC 337	C	881.50	882.65	1.15	CO		A	0	CORED
107	FC 337	C	882.65	883.35	.70	SH	SDY SLY		0	CORED
108	FC 337	C	883.35	891.00	7.65	ST	LIT GRY HRD		0	CORED
109	FC 337	C	891.00	897.60	6.60	ST	CAS HRD		0	
110	FC 337	C	897.60	898.00	.40	ST	BH		0	LOSS

			SEAM CODE	SAMP NO	SAMPLE DEPTH FROM	SAMPLE DEPTH TO	ANALYSIS CODE	PROXIMATE ANALYSIS %MOIS	%VOL	%CARB	%ASH	%SUL	BTU	EQUIL. MOIST	F P
1	FC 337	D		1	701.00	702.50	1	2.6	.0	.0	81.1	2.14	1111	.00	F
2	FC 337	D		1	701.00	702.50	2	.0	.0	.0	83.3	2.20	1141	.00	F
3	FC 337	D		2	706.65	708.00	1	3.7	.0	.0	59.2	.43	4341	.00	F
4	FC 337	D		2	706.65	708.00	2	.0	.0	.0	61.5	.45	4507	.00	F
5	FC 337	D		3	711.00	711.70	1	5.3	.0	.0	85.6	.18	450	.00	F
6	FC 337	D		3	711.00	711.70	2	.0	.0	.0	90.4	.19	475	.00	F
7	FC 337	D		4	728.10	728.70	1	3.9	.0	.0	54.5	1.46	4668	.00	F
8	FC 337	D		4	728.10	728.70	2	.0	.0	.0	56.7	1.52	4857	.00	F

			SEAM CODE	SAMP NO	SP GR	TYPE CODE	FLOAT SINK DATA % WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE
1	FC 337	G	I	1	0001601	DF	7933	.00	13.05	1.16	0	0001
2	FC 337	G	I	2	0001601	DF	9483	.00	9.32	.80	0	0001
3	FC 337	G	I	3	0001601	DF	9468	.00	8.80	.54	0	0001
4	FC 337	G	I	4	0001601	DF	9944	.00	5.11	.45	0	0001
5	FC 337	G	I	5	0001601	DF	8366	.00	9.45	.36	0	0001
6	FC 337	G	I	6	0001601	DF	8884	.00	7.63	.40	0	0001
7	FC 337	G	I	7	0001601	DF	9561	.00	10.63	.42	0	0001
8	FC 337	G	I	8	0001601	DF	9812	.00	6.19	.48	0	0001
9	FC 337	G	I	9	0001601	DF	9920	.00	7.23	.45	0	0001
10	FC 337	G	I	0	0001601	DF	9916	.00	4.46	.77	0	0001
11	FC 337	G	I	1	0001601	DS	2067	.00	44.97	2.88	0	0001

FLOAT SINK DATA

			SEAM CODE	SAMP NO	SP GR	TYPE CODE	% WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE
12	FC 337	G	I	2	000160I	DS	0517	.00	48.90	4.24	0	0001
13	FC 337	G	I	3	000160I	DS	0532	.00	44.62	.75	0	0001
14	FC 337	G	I	4	000160I	DS	0056	.00	42.52	.41	0	0001
15	FC 337	G	I	5	000160I	DS	1634	.00	69.31	.12	0	0001
16	FC 337	G	I	6	000160I	DS	1116	.00	47.27	.26	0	0001
17	FC 337	G	I	7	000160I	DS	0439	.00	39.45	.42	0	0001
18	FC 337	G	I	8	000160I	DS	0188	.00	44.77	.86	0	0001
19	FC 337	G	I	9	000160I	DS	0080	.00	41.58	.44	0	0001
20	FC 337	G	I	0	000160I	DS	0084	.00	50.35	4.23	0	0001

SEQ NO = 1 DRILL HOLE NO = FC 338 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 5E SECTION = 36

SECTION CODE = SURFACE ELEV. = 6094.15 HOW DET. = 6

N-COORD = 189439 E-COORD = 2055504 SOURCE = 2 LOCATION = 1

THK CORED = 524.50 THK N-CORED = 420.00 USGS = SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 338 FORMAT = B PROPERTY OR FARM = DRILLER = KNIGHT

DRILL CONTR = DATE DRILLED = 0674

TWP OR PLACE = COMMENTS = NO E-LOG

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 338	C	.00	10.00	10.00	CL	SDY		0	
4	FC 338	C	10.00	420.00	410.00	SH	GRY		0	
5	FC 338	C	420.00	440.00	20.00	SH	CAS SLY HRD		0	CORED
6	FC 338	C	440.00	450.00	10.00	ST	SDY CAS MED HRD		0	CORED
7	FC 338	C	450.00	470.00	20.00	ST	CAS MED HRD		0	CORED
8	FC 338	C	470.00	500.00	30.00	SH	SLY CAS MED HRD		0	CORED
9	FC 338	C	500.00	550.00	50.00	ST	MED HRD		0	CORED
10	FC 338	C	550.00	570.00	20.00	SH	CAS SFT		0	CORED
11	FC 338	C	570.00	580.00	10.00	SH	CAS MED HRD		0	CORED
12	FC 338	C	580.00	590.00	10.00	SH	SLY CAS MED HRD		0	CORED
13	FC 338	C	590.00	610.00	20.00	ST	CAS MED HRD		0	CORED
14	FC 338	C	610.00	620.35	10.35	ST	SDY CAS HRD		0	CORED
15	FC 338	C	620.35	621.45	1.10	SS	SLY HRD	TF	0	CORED
16	FC 338	C	621.45	637.75	16.30	SS	CAS HRD		0	CORED
17	FC 338	C	637.75	637.85	.10	SH	CRB		0	CORED
18	FC 338	C	637.85	643.00	5.15	SS	CAS HRD		0	CORED
19	FC 338	C	643.00	644.15	1.15	SH	SDY		0	CORED
20	FC 338	C	644.15	672.45	28.30	SS	CAS HRD		0	CORED
21	FC 338	C	672.45	681.10	8.65	SS			0	CORED
22	FC 338	C	681.10	683.25	2.15	SS	SLY HRD		0	CORED
23	FC 338	C	683.25	687.05	3.80	SS	LIT GRY HRD		0	CORED
24	FC 338	C	687.05	688.30	1.25	SH	SLY CRB		0	CORED
25	FC 338	C	688.30	691.50	3.20	CO			0	CORED
26	FC 338	C	691.50	692.45	.95	SH	CRB MED SFT		0	CORED
27	FC 338	C	692.45	695.00	2.55	SS	HRD		0	CORED
28	FC 338	C	695.00	696.80	1.80	SH	LIT GRY SFT		0	CORED
29	FC 338	C	696.80	697.55	.75	SH	CRB COL MED SFT		0	CORED
30	FC 338	C	697.55	699.10	1.55	CO			0	CORED
31	FC 338	C	699.10	702.45	3.35	ND			0	CORED
32	FC 338	C	702.45	702.55	.10	SH	SLY MED HRD		0	CORED
33	FC 338	C	702.55	702.80	.25	SH	SDY SLY MED HRD		0	CORED
34	FC 338	C	702.80	703.80	1.00	SH	CLY SFT		0	CORED
35	FC 338	C	703.80	705.25	1.45	SH	SLY MED HRD		0	CORED
36	FC 338	C	705.25	705.65	.40	SH	CRB SFT		0	CORED

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
37	FC 338	C	705.65	705.90	.25	SH	CLY SFT		0	CORED
38	FC 338	C	705.90	706.00	.10	SH	SDY CLY MED HRD		0	CORED
39	FC 338	C	706.00	707.10	1.10	SH	CRB CLY		0	CORED
40	FC 338	C	707.10	707.25	.15	SH	SLY MED HRD		0	CORED
41	FC 338	C	707.25	707.90	.65	SH	MED HRD		0	CORED
42	FC 338	C	707.90	708.15	.25	ST	WHT HRD		0	CORED
43	FC 338	C	708.15	708.45	.30	SH			0	CORED
44	FC 338	C	708.45	709.40	.95	SH	CRB		0	CORED
45	FC 338	C	709.40	712.20	2.80	SH	CLY		0	CORED
46	FC 338	C	712.20	716.00	3.80	ST	LIT GRY HRD		0	CORED
47	FC 338	C	716.00	721.70	5.70	SS	CRB SHY HRD		0	CORED
48	FC 338	C	721.70	725.30	3.60	SS	HRD		0	CORED
49	FC 338	C	725.30	726.00	.70	SS	SHY SFT		0	CORED
50	FC 338	C	726.00	736.00	10.00	SS	CRB COL HRD		0	CORED
51	FC 338	C	736.00	736.00	.00	CO	EXH	K	0	
52	FC 338	C	736.00	745.10	9.10	SS	HRD		0	CORED
53	FC 338	C	745.10	745.10	.00	CO	EXH	J	0	
54	FC 338	C	745.10	746.00	.90	SH	CRB COL MED HRD		0	CORED
55	FC 338	C	746.00	748.60	2.60	SS	CRB COL HRD		0	CORED
56	FC 338	C	748.60	751.70	3.10	CO		UI	0	
57	FC 338	C	751.70	752.70	1.00	SH			0	
58	FC 338	C	752.70	763.80	11.10	CO		LI	0	
59	FC 338	C	763.80	766.00	2.20	SH	CRB COL MED HRD		0	CORED
60	FC 338	C	766.00	770.00	4.00	SH	SDY CLY MED SFT		0	CORED
61	FC 338	C	770.00	770.50	.50	SH	SDY SLY MED HRD		0	CORED
62	FC 338	C	770.50	771.05	.55	ST	HRD		0	CORED
63	FC 338	C	771.05	771.30	.25	SH	CLY SLY MED HRD		0	CORED
64	FC 338	C	771.30	773.65	2.35	ST	SHY HRD		0	CORED
65	FC 338	C	773.65	774.00	.35	SH	CLY SLY MED HRD		0	CORED
66	FC 338	C	774.00	777.20	3.20	ST	SHY HRD		0	CORED
67	FC 338	C	777.20	778.35	1.15	SH	SLY MED HRD		0	CORED
68	FC 338	C	778.35	779.60	1.25	SH	CLY MED SFT		0	CORED
69	FC 338	C	779.60	781.90	2.30	ST	SDY HRD		0	CORED
70	FC 338	C	781.90	783.10	1.20	SH	SDY SLY MED HRD		0	CORED
71	FC 338	C	783.10	787.95	4.85	ST	SDY CAS HRD		0	CORED
72	FC 338	C	787.95	788.55	.60	SS	GRY HRD		0	CORED
73	FC 338	C	788.55	795.55	7.00	ST	GRY HRD		0	CORED
74	FC 338	C	795.55	796.00	.45	SH	SDY SLY MED HRD		0	CORED
75	FC 338	C	796.00	796.40	.40	SH	SDY MED HRD		0	CORED
76	FC 338	C	796.40	798.00	1.60	SH	SDY SLY MED HRD		0	CORED
77	FC 338	C	798.00	798.30	.30	ST	SDY HRD		0	CORED
78	FC 338	C	798.30	799.30	1.00	SH	SDY MED HRD		0	CORED
79	FC 338	C	799.30	809.30	10.00	ST	LIT GRY HRD		0	CORED
80	FC 338	C	809.30	836.30	27.00	SS	LIT GRY HRD		0	CORED
81	FC 338	C	836.30	840.50	4.20	CO		G	0	CORED
82	FC 338	C	840.50	841.10	.60	SH	SLY CRB		0	CORED
83	FC 338	C	841.10	841.55	.45	SH	SDY MED HRD		0	CORED
84	FC 338	C	841.55	841.90	.35	SH	CLY MED SFT		0	CORED
85	FC 338	C	841.90	843.85	1.95	SH	CRB MED HRD		0	CORED
86	FC 338	C	843.85	844.20	.35	CO			0	CORED
87	FC 338	C	844.20	844.90	.70	SH	CRB MED SFT		0	CORED

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
88	FC 338	C	844.90	846.20	1.30	SH	SLY CRB MED HRD		0	CORED
89	FC 338	C	846.20	847.35	1.15	SH	SLY SDY		0	CORED
90	FC 338	C	847.35	850.65	3.30	ST	SDY HRD		0	CORED
91	FC 338	C	850.65	851.90	1.25	ST	SDY HRD		0	CORED
92	FC 338	C	851.90	860.00	8.10	SS	LIT GRY HRD		0	CORED
93	FC 338	C	860.00	860.55	.55	ST	SDY HRD		0	CORED
94	FC 338	C	860.55	862.35	1.80	SS	LIT GRY HRD		0	CORED
95	FC 338	C	862.35	863.45	1.10	ST	SDY HRD		0	CORED
96	FC 338	C	863.45	882.25	18.80	SS	LIT GRY HRD		0	CORED
97	FC 338	C	882.25	883.45	1.20	SH	CLY MED SFT		0	CORED
98	FC 338	C	883.45	883.95	.50	SH	CRB CLY MED HRD		0	CORED
99	FC 338	C	883.95	886.80	2.85	CO		D	0	CORED
100	FC 338	C	886.80	886.90	.10	SH	CRB MED HRD		0	CORED
101	FC 338	C	886.90	887.00	.10	SH	CRB CLY MED HRD		0	CORED
102	FC 338	C	887.00	887.60	.60	SH	CLY SFT		0	CORED
103	FC 338	C	887.60	888.10	.50	SH	CRB BNY MED HRD		0	CORED
104	FC 338	C	888.10	888.60	.50	CO		C	0	CORED
105	FC 338	C	888.60	893.80	5.20	SH	COL	C	0	CORED
106	FC 338	C	893.80	894.80	1.00	CO		C	0	CORED
107	FC 338	C	894.80	895.20	.40	SH	CRB BNY MED HRD	C	0	CORED
108	FC 338	C	895.20	895.30	.10	CO		C	0	CORED
109	FC 338	C	895.30	895.40	.10	SH	CRB CLY MED HRD	C	0	CORED
110	FC 338	C	895.40	895.50	.10	CO		C	0	CORED
111	FC 338	C	895.50	896.20	.70	SH	CLY SDY		0	CORED
112	FC 338	C	896.20	896.50	.30	ST	ASY HRD		0	CORED
113	FC 338	C	896.50	899.45	2.95	SH	CLY SDY		0	CORED
114	FC 338	C	899.45	899.90	.45	SH	CRB CLY MED SFT		0	CORED
115	FC 338	C	899.90	900.05	.15	CO			0	CORED
116	FC 338	C	900.05	900.55	.50	SH	CRB BNY MED HRD		0	CORED
117	FC 338	C	900.55	901.15	.60	ST	SLY HRD		0	CORED
118	FC 338	C	901.15	905.85	4.70	SH	SLY MED HRD		0	CORED
119	FC 338	C	905.85	907.05	1.20	SH	CRB MED HRD		0	CORED
120	FC 338	C	907.05	907.50	.45	ST	CRB HRD		0	CORED
121	FC 338	C	907.50	909.10	1.60	ST	HRD		0	CORED
122	FC 338	C	909.10	909.30	.20	SH	SLY SDY MED HRD		0	CORED
123	FC 338	C	909.30	909.60	.30	ST	LIT GRY HRD		0	CORED
124	FC 338	C	909.60	910.05	.45	SH	SLY SDY		0	CORED
125	FC 338	C	910.05	910.40	.35	ST	SDY HRD		0	CORED
126	FC 338	C	910.40	914.45	4.05	ST	LIT GRY HRD		0	CORED
127	FC 338	C	914.45	920.00	5.55	SS	LIT GRY HRD		0	CORED
128	FC 338	C	920.00	927.60	7.60	SS	CAS HRD		0	CORED
129	FC 338	C	927.60	927.75	.15	SH	CRB SLY MED HRD		0	CORED
130	FC 338	C	927.75	929.65	1.90	SS	LIT GRY HRD		0	CORED
131	FC 338	C	929.65	929.85	.20	SH	SDY MED HRD		0	CORED
132	FC 338	C	929.85	930.00	.15	SS	LIT GRY HRD		0	CORED
133	FC 338	C	930.00	933.80	3.80	SS	CAS HRD		0	CORED
134	FC 338	C	933.80	933.90	.10	SH	SDY MED HRD		0	CORED
135	FC 338	C	933.90	934.25	.35	SS	CAS HRD		0	CORED
136	FC 338	C	934.25	934.45	.20	SH	SLY SDY		0	CORED
137	FC 338	C	934.45	934.70	.25	SS	CAS HRD		0	CORED
138	FC 338	C	934.70	934.85	.15	SH	SLY SDY		0	CORED

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
139	FC 338	C	934.85	939.60	4.75	SS	CAS HRD		0	CORED
140	FC 338	C	939.60	941.15	1.55	SS	CAS HRD		0	CORED
141	FC 338	C	941.15	944.45	3.30	ST	CAS HRD		0	CORED
142	FC 338	C	944.45	945.15	.70	SH	SDY MED HRD		0	CORED
143	FC 338	C	945.15	945.60	.45	SH	CRB MED SFT		0	CORED
144	FC 338	C	945.60	945.90	.30	SH	SDY MED HRD		0	CORED
145	FC 338	C	945.90	951.00	5.10	CO		A	0	CORED
146	FC 338	C	951.00	951.25	.25	SH	CRB BNY	A	0	CORED
147	FC 338	C	951.25	951.35	.10	CO	BNY	A	0	CORED
148	FC 338	C	951.35	952.00	.65	CO		A	0	CORED
149	FC 338	C	952.00	953.50	1.50	CO		A	0	CORED
150	FC 338	C	953.50	953.60	.10	SH	CRB MED HRD		0	CORED
151	FC 338	C	953.60	954.00	.40	ST	CRB HRD		0	CORED
152	FC 338	C	954.00	954.45	.45	SH	CRB MED HRD		0	CORED
153	FC 338	C	954.45	955.35	.90	ST	LIT GRY HRD		0	CORED
154	FC 338	C	955.35	955.70	.35	SH	SLY MED HRD		0	CORED
155	FC 338	C	955.70	955.80	.10	ST	LIT GRY HRD		0	CORED
156	FC 338	C	955.80	956.30	.50	SH	SLY MED HRD		0	CORED
157	FC 338	C	956.30	964.50	8.20	SS	LIT GRY HRD BH		0	CORED

			SEAM CODE	SAMP NO	SAMPLE DEPTH FROM	SAMPLE DEPTH TO	ANALYSIS CODE	PROXIMATE ANALYSIS %MOIS	%VOL	%CARB	%ASH	%SUL	BTU	EQUIL. MOIST	F P
1	FC 338	D		1	746.00	748.00	1	.5	.0	.0	92.5	.01	295	.00	F
2	FC 338	D		1	746.00	748.00	2	.0	.0	.0	92.9	.01	296	.00	F
3	FC 338	D		2	763.80	764.50	1	3.3	.0	.0	54.9	2.48	5323	.00	F
4	FC 338	D		2	763.80	764.50	2	.0	.0	.0	56.8	2.56	5504	.00	F

			SEAM CODE	SAMP NO	SP GR	TYPE CODE	FLOAT SINK DATA % WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE
1	FC 338	G	I	1	000160	DF	5336	.00	6.89	.51	0	0001
2	FC 338	G	I	2	000160	DF	9892	.00	6.13	.44	0	0001
3	FC 338	G	I	3	000160	DF	7949	.00	9.62	.35	0	0001
4	FC 338	G	I	4	000160	DF	9764	.00	5.75	.38	0	0001
5	FC 338	G	I	5	000160	DF	9822	.00	7.14	.35	0	0001
6	FC 338	G	I	6	000160	DF	9862	.00	6.85	.46	0	0001
7	FC 338	G	I	7	000160	DF	9880	.00	6.28	.50	0	0001
8	FC 338	G	I	8	000160	DF	9969	.00	5.40	.78	0	0001
9	FC 338	G	I	9	000160	DS	4664	.00	83.17	.09	0	0001
10	FC 338	G	I	0	000160	DS	0108	.00	38.55	.99	0	0001
11	FC 338	G	I	0	000160	DS	2051	.00	58.06	.42	0	0001
12	FC 338	G	I	0	000160	DS	0236	.00	53.10	.18	0	0001
13	FC 338	G	I	0	000160	DS	0178	.00	45.93	.25	0	0001
14	FC 338	G	I	0	000160	DS	0138	.00	40.57	.44	0	0001
15	FC 338	G	I	0	000160	DS	0120	.00	.00	.00	0	0001
16	FC 338	G	I	0	000160	DS	0031	.00	40.37	3.64	0	0001

SEQ NO = 1 DRILL HOLE NO = FC 340 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 30

SECTION CODE = SURFACE ELEV. = 6018.98 HOW DET. = 6

N-COORD = 194152 E-COORD = 2059177 SOURCE = 2 LOCATION = 1

THK CORED = 92.10 THK N-CORED = 650.00 USGS = WALKER FLAT SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 340 FORMAT = B PROPERTY OR FARM = LEWIS DRILLER = KNIGHT

DRILL CONTR = DATE DRILLED = 0774

TWP OR PLACE = COMMENTS =

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 340	C	.00	25.00	25.00	CL	SDY BRN		0	
4	FC 340	C	25.00	340.00	315.00	SH	BLU		0	
5	FC 340	C	340.00	575.00	235.00	SH	BLU		0	
6	FC 340	C	575.00	650.00	75.00	SS		TF	0	
7	FC 340	C	650.00	660.00	10.00	SS	LIT GRY HRD		0	CORED
8	FC 340	C	660.00	661.50	1.50	SS	CAS CRB		0	CORED
9	FC 340	C	661.50	662.00	.50	CO			0	CORED
10	FC 340	C	662.00	663.00	1.00	SH	BLK CRB		0	CORED
11	FC 340	C	663.00	667.30	4.30	ST	CRB		0	CORED
12	FC 340	C	667.30	669.60	2.30	SH	CRB BLK		0	CORED
13	FC 340	C	669.60	670.85	1.25	CO		K	0	CORED
14	FC 340	C	670.85	675.00	4.15	CO		K	0	CORED LOSS
15	FC 340	C	675.00	675.65	.65	CO		K	0	CORED
16	FC 340	C	675.65	675.95	.30	SH	CRB		0	CORED
17	FC 340	C	675.95	677.15	1.20				0	CORED LOSS
18	FC 340	C	677.15	677.25	.10	SH	CRB SLY		0	CORED
19	FC 340	C	677.25	680.35	3.10	ST	LIT GRY HRD		0	CORED
20	FC 340	C	680.35	680.75	.40	SH	SLY MED HRD		0	CORED
21	FC 340	C	680.75	687.40	6.65	ST	SLY HRD		0	CORED
22	FC 340	C	687.40	687.90	.50	SH	SLY SDY MED HRD		0	CORED
23	FC 340	C	687.90	690.90	3.00	SH	SLY MED HRD		0	CORED
24	FC 340	C	690.90	694.40	3.50	CO		J	0	
25	FC 340	C	694.40	695.70	1.30	SH			0	
26	FC 340	C	695.70	702.70	7.00	CO		UI	0	
27	FC 340	C	702.70	703.70	1.00	BO	CRB		0	
28	FC 340	C	703.70	715.30	11.60	CO		LI	0	
29	FC 340	C	715.30	717.50	2.20	SH	CRB CAS COL		0	CORED
30	FC 340	C	717.50	720.00	2.50	SS	CRB COL		0	CORED
31	FC 340	C	720.00	720.25	.25	ST	LIT GRY HRD		0	CORED
32	FC 340	C	720.25	720.50	.25	SH	CLY MED HRD		0	CORED
33	FC 340	C	720.50	720.85	.35	ST	LIT GRY HRD		0	CORED
34	FC 340	C	720.85	720.95	.10	SH	SLY MED HRD		0	CORED
35	FC 340	C	720.95	721.15	.20	SH	CLY CRB MED HRD		0	CORED
36	FC 340	C	721.15	721.55	.40	SH	CLY MED SFT		0	CORED

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
37	FC 340	C	721.55	722.20	.65	SH	CLY MED HRD		0	CORED
38	FC 340	C	722.20	723.95	1.75	ST	SDY HRD		0	CORED
39	FC 340	C	723.95	727.25	3.30	SH	CLY MED SFT		0	CORED
40	FC 340	C	727.25	728.20	.95	ST	SDY HRD		0	CORED
41	FC 340	C	728.20	729.70	1.50	ST	LIT GRY HRD		0	CORED
42	FC 340	C	729.70	730.00	.30	SH	SLY MED HRD		0	CORED
43	FC 340	C	730.00	730.45	.45	SH	SDY MED HRD		0	CORED
44	FC 340	C	730.45	734.75	4.30	SH	SLY CLY MED HRD		0	CORED
45	FC 340	C	734.75	736.50	1.75	ST	LIT GRY HRD		0	CORED
46	FC 340	C	736.50	737.05	.55	SH	SDY SLY MED HRD		0	CORED
47	FC 340	C	737.05	737.45	.40	ST	LIT GRY HRD		0	CORED
48	FC 340	C	737.45	737.80	.35	SH	CRB SLY MED HRD		0	CORED
49	FC 340	C	737.80	739.90	2.10	ST	HRD		0	CORED
50	FC 340	C	739.90	740.00	.10	SH	CRB SLY MED HRD		0	CORED
51	FC 340	C	740.00	741.70	1.70	SH	CRB SLY MED SFT		0	CORED
52	FC 340	C	741.70	742.10	.40	ST	LIT GRY HRD BH		0	CORED

			SEAM CODE	SAMP NO	SAMPLE DEPTH FROM	SAMPLE DEPTH TO	ANALYSIS CODE	PROXIMATE ANALYSIS %MOIS	%VOL	%CARB	%ASH	%SUL	BTU	EQUIL. MOIST	F P
1	FC 340	D		1	690.00	690.90	1	2.3	.0	.0	80.0	2.42	1445	.00	F
2	FC 340	D		1	690.00	690.90	2	.0	.0	.0	81.8	2.48	1479	.00	F
3	FC 340	D		2	694.05	695.10	1	6.8	.0	.0	71.6	.22	1561	.00	F
4	FC 340	D		2	694.05	695.10	2	.0	.0	.0	76.8	.24	1674	.00	F
5	FC 340	D		3	716.00	717.50	1	4.5	.0	.0	52.4	3.00	5307	.00	F
6	FC 340	D		3	716.00	717.50	2	.0	.0	.0	54.8	3.14	5556	.00	F

			SEAM CODE	SAMP NO	SP GR	TYPE CODE	FLOAT SINK DATA % WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE
1	FC 340	G	I	1	0001601	DS	1479	.00	49.39	1.83	0	0001
2	FC 340	G	I	2	0001601	DS	0059	.00	41.01	.74	0	0001
3	FC 340	G	I	3	0001601	DS	0081	.00	41.65	.51	0	0001
4	FC 340	G	I	4	0001601	DS	0095	.00	34.92	.58	0	0001
5	FC 340	G	I	5	0001601	DS	0289	.00	42.91	.66	0	0001
6	FC 340	G	I	6	0001601	DS	0083	.00	45.38	1.85	0	0001
7	FC 340	G	I	7	0001601	DS	1332	.00	63.91	.32	0	0001
8	FC 340	G	I	8	0001601	DS	4610	.00	65.22	.09	0	0001
9	FC 340	G	I	9	0001601	DS	0335	.00	30.83	.83	0	0001
10	FC 340	G	I	0	0001601	DS	0070	.00	24.10	.32	0	0001
11	FC 340	G	I	0	0001601	DS	0172	.00	47.85	.65	0	0001
12	FC 340	G	I	0	0001601	DS	0353	.00	43.92	8.82	0	0001
13	FC 340	G	I	0	0001601	DF	8521	.00	11.33	1.18	0	0001
14	FC 340	G	I	0	0001601	DF	9941	.00	8.46	.53	0	0001
15	FC 340	G	I	0	0001601	DF	9919	.00	6.33	.40	0	0001
16	FC 340	G	I	0	0001601	DF	9906	.00	6.40	.34	0	0001
17	FC 340	G	I	0	0001601	DF	9711	.00	6.21	1.08	0	0001
18	FC 340	G	I	0	0001601	DF	9917	.00	7.93	.51	0	0001

			SEAM CODE	SAMP NO	SP GR	TYPE CODE	FLOAT SINK DATA % WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE
19	FC 340	G	I	0	0001601	DF	8668	.00	5.99	.44	0	0001
20	FC 340	G	I	0	0001601	DF	5390	.00	12.42	.48	0	0001
21	FC 340	G	I	0	0001601	DF	9665	.00	4.67	.37	0	0001
22	FC 340	G	I	0	0001601	DF	9930	.00	7.73	.43	0	0001
23	FC 340	G	I	0	0001601	DF	9828	.00	6.46	.52	0	0001
24	FC 340	G	I	0	0001601	DF	9647	.00	6.37	1.14	0	0001

SEQ NO = 1 DRILL HOLE NO = FC 341P FORMAT = A STATE = 43 COUNTY = 041 TWP = RANGE = SECTION = 32

SECTION CODE = SURFACE ELEV. = 5978.66 HOW DET. = 0

N-COORD = 189965 E-COORD = 2066290 SOURCE = 0 LOCATION = 0

THK CORED = .00 THK N-CORED = .00 USGS = SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 341P FORMAT = B PROPERTY OR FARM = DRILLER = DANIELS

DRILL CONTR = DATE DRILLED = 0674

TWP OR PLACE = COMMENTS =

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 341P	C	.00	98.70	98.70	SS	SHY		0	
4	FC 341P	C	98.70	99.80	1.10	CO		J	1	
5	FC 341P	C	99.80	105.00	5.20	SH			0	
6	FC 341P	C	105.00	109.70	4.70	SS			0	
7	FC 341P	C	109.70	111.00	1.30	CO		J	3	
8	FC 341P	C	111.00	112.60	1.60	PT			0	PARTING
9	FC 341P	C	112.60	118.10	5.50	CO		UI	0	
10	FC 341P	C	118.10	132.30	14.20	SH			0	
11	FC 341P	C	132.30	135.00	2.70	SS			0	
12	FC 341P	C	135.00	142.00	7.00	CO		LI	1	
13	FC 341P	C	142.00	143.30	1.30	PT			0	PARTING
14	FC 341P	C	143.30	147.20	3.90	CO		LI	5	
15	FC 341P	C	147.20	165.00	17.80	SH			0	
16	FC 341P	C	165.00	175.00	10.00	SS			0	
17	FC 341P	C	175.00	186.80	11.80	SH			0	
18	FC 341P	C	186.80	191.00	4.20	CO		G	0	
19	FC 341P	C	191.00	200.00	9.00	SH	BH		0	

SEQ NO = 1 DRILL HOLE NO = FC 345P FORMAT = A STATE = 43 COUNTY = 015 TWP = 43 RANGE = 015 SECTION = 06

SECTION CODE = SURFACE ELEV. = 6010.76 HOW DET. = 6

N-COORD = 188732 E-COORD = 2060967 SOURCE = 2 LOCATION = 1

THK CORED = .00 THK N-CORED = .00 USGS = SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 345P FORMAT = B PROPERTY OR FARM = DRILLER =

DRILL CONTR = DATE DRILLED = 0000

TWP OR PLACE = COMMENTS =

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 345P	C	.00	38.00	38.00	ST			0	
4	FC 345P	C	38.00	290.00	252.00	SH			0	
5	FC 345P	C	290.00	318.60	28.60	SS		TF	0	
6	FC 345P	C	318.60	324.30	5.70	SH			0	
7	FC 345P	C	324.30	333.00	8.70	SS			0	
8	FC 345P	C	333.00	382.40	49.40	SS			0	LOST CIRCUL
9	FC 345P	C	382.40	385.20	2.80	CO			0	RIDER
10	FC 345P	C	385.20	396.00	10.80	SH			0	
11	FC 345P	C	396.00	397.50	1.50	CO			0	RIDER
12	FC 345P	C	397.50	400.00	2.50	SH	PTG		0	
13	FC 345P	C	400.00	401.80	1.80	CO			0	RIDER
14	FC 345P	C	401.80	406.00	4.20	SH			0	
15	FC 345P	C	406.00	407.60	1.60	CO		K	0	
16	FC 345P	C	407.60	408.70	1.10	SH	PTG	K	0	
17	FC 345P	C	408.70	410.90	2.20	CO		K	0	
18	FC 345P	C	410.90	413.10	2.20	SH			0	
19	FC 345P	C	413.10	416.30	3.20	SS			0	
20	FC 345P	C	416.30	424.00	7.70	SH			0	
21	FC 345P	C	424.00	428.50	4.50	CO		J	0	
22	FC 345P	C	428.50	430.00	1.50	SH			0	
23	FC 345P	C	430.00	435.90	5.90	CO		UI	0	
24	FC 345P	C	435.90	437.20	1.30	SH			0	
25	FC 345P	C	437.20	450.00	12.80	CO		LI	0	
26	FC 345P	C	450.00	454.40	4.40	SH			0	
27	FC 345P	C	454.40	504.00	49.60	SS			0	
28	FC 345P	C	504.00	508.10	4.10	SH			0	
29	FC 345P	C	508.10	520.00	11.90	SS			0	
30	FC 345P	C	520.00	527.30	7.30	SH			0	
31	FC 345P	C	527.30	532.20	4.90	CO		G	0	
32	FC 345P	C	532.20	537.20	5.00	SH	PTG		0	
33	FC 345P	C	537.20	538.50	1.30	CO			0	
34	FC 345P	C	538.50	568.70	30.20	SH			0	
35	FC 345P	C	568.70	573.00	4.30	CO		D	0	
36	FC 345P	C	573.00	575.00	2.00	PT			0	PARTING

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
37	FC 345P	C	575.00	580.90	5.90	CO		C	0	
38	FC 345P	C	580.90	581.70	.80	SH	PTG	C	0	
39	FC 345P	C	581.70	582.70	1.00	CO		C	0	
40	FC 345P	C	582.70	594.00	11.30	SH			0	
41	FC 345P	C	594.00	636.90	42.90	SS			0	
42	FC 345P	C	636.90	651.00	14.10	CO		A	0	
43	FC 345P	C	651.00	660.00	9.00	SH	BH		0	

SEQ NO = 1 DRILL HOLE NO = FC 347 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 32

SECTION CODE = SURFACE ELEV. = 5929.96 HOW DET. = 6

N-COORD = 192374 E-COORD = 2066838 SOURCE = 2 LOCATION = 1

THK CORED = 152.00 THK N-CORED = 52.00 USGS = SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 347 FORMAT = B PROPERTY OR FARM = DRILLER = DANIELS

DRILL CONTR = DATE DRILLED = 0874

TWP OR PLACE = COMMENTS =

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 347	C	.00	31.00	31.00	ST			0	
4	FC 347	C	31.00	47.00	16.00	GR			0	
5	FC 347	C	47.00	52.00	5.00	SH			0	
6	FC 347	C	52.00	53.40	1.40	ST	CAS HRD		0	CORED
7	FC 347	C	53.40	54.70	1.30	ST	HRD		0	CORED
8	FC 347	C	54.70	55.50	.80	SS		TF	0	CORED LOSS
9	FC 347	C	55.50	59.00	3.50	SS	MED HRD		0	CORED
10	FC 347	C	59.00	59.50	.50	ND			0	CORED LOSS
11	FC 347	C	59.50	61.60	2.10	SS	LIT GRY HRD		0	CORED
12	FC 347	C	61.60	61.75	.15	SH	LIT GRY SLY		0	CORED
13	FC 347	C	61.75	61.90	.15	SH	DRK GRY CLY		0	CORED
14	FC 347	C	61.90	63.35	1.45	SS	HRD		0	CORED
15	FC 347	C	63.35	63.85	.50	SH	LIT GRY MED HRD		0	CORED
16	FC 347	C	63.85	64.05	.20	SH	SLY MED HRD		0	CORED
17	FC 347	C	64.05	64.30	.25	SH	CLY SFT		0	CORED
18	FC 347	C	64.30	69.00	4.70	SS	LIT GRY MED SFT		0	CORED
19	FC 347	C	69.00	90.00	21.00	SS	LIT GRY HRD		0	CORED
20	FC 347	C	90.00	90.30	.30	SH	LIT GRY SLY		0	CORED
21	FC 347	C	90.30	94.50	4.20	SS	LIT GRY HRD		0	CORED
22	FC 347	C	94.50	95.30	.80	CO			0	CORED
23	FC 347	C	95.30	96.15	.85	SH	CRB MED HRD		0	CORED
24	FC 347	C	96.15	96.50	.35	SH	CRB CLY SLY		0	CORED
25	FC 347	C	96.50	97.15	.65	ST	CRB		0	CORED BENTO
26	FC 347	C	97.15	97.45	.30	SH	SLY MED HRD		0	CORED
27	FC 347	C	97.45	99.00	1.55	SH	SDY MED HRD		0	CORED
28	FC 347	C	99.00	99.85	.85	ST	SHY HRD		0	CORED
29	FC 347	C	99.85	100.45	.60	SH	SLY MED HRD		0	CORED
30	FC 347	C	100.45	102.10	1.65	ST	SHY HRD		0	CORED
31	FC 347	C	102.10	102.25	.15	SH	CLY SFT		0	CORED
32	FC 347	C	102.25	102.40	.15	CO			0	CORED
33	FC 347	C	102.40	102.50	.10	SH			0	CORED LOSS
34	FC 347	C	102.50	102.60	.10	SH	CLY SFT		0	CORED
35	FC 347	C	102.60	103.60	1.00	SH	SLY MED HRD		0	CORED
36	FC 347	C	103.60	103.95	.35	ST	SDY HRD		0	CORED

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
37	FC 347	C	103.95	153.40	49.45	SS	LIT GRY HRD		0	CORED
38	FC 347	C	153.40	153.75	.35	SH	CRB MED HRD		0	CORED
39	FC 347	C	153.75	154.55	.80	CO			0	CORED
40	FC 347	C	154.55	155.35	.80	SH	CRB MED HRD		0	CORED
41	FC 347	C	155.35	155.90	.55	SH	CLY		0	CORED
42	FC 347	C	155.90	156.30	.40	SH	SLY MED HRD		0	CORED
43	FC 347	C	156.30	159.00	2.70	ST	SDY HRD		0	CORED
44	FC 347	C	159.00	169.00	10.00	ST	SHY HRD		0	CORED
45	FC 347	C	169.00	170.65	1.65	ST	SDY HRD		0	CORED
46	FC 347	C	170.65	170.90	.25	SH	CLY MED HRD		0	CORED
47	FC 347	C	170.90	171.35	.45	SH	CRB MED HRD		0	CORED
48	FC 347	C	171.35	171.70	.35	CO		J	0	CORED
49	FC 347	C	171.70	173.00	1.30	SH	CRB COL MED HRD		0	CORED
50	FC 347	C	173.00	173.40	.40	ST	DRK BRN		0	CORED
51	FC 347	C	173.40	173.50	.10	SH	CRB SLY MED HRD		0	CORED
52	FC 347	C	173.50	179.00	5.50	CO		UI	0	
53	FC 347	C	179.00	180.20	1.20	SH			0	
54	FC 347	C	180.20	192.50	12.30	CO		LI	0	
55	FC 347	C	192.50	193.00	.50	SH	SLY MED HRD		0	CORED
56	FC 347	C	193.00	193.15	.15	SH	CLY MED HRD		0	CORED
57	FC 347	C	193.15	193.65	.50	CL	SFT		0	CORED BENTO
58	FC 347	C	193.65	194.40	.75	SH	CLY MED HRD		0	CORED
59	FC 347	C	194.40	195.10	.70	ST	LIT GRY HRD		0	CORED
60	FC 347	C	195.10	195.50	.40	SH	CLY MED HRD		0	CORED
61	FC 347	C	195.50	195.95	.45	ST	LIT GRY HRD		0	CORED
62	FC 347	C	195.95	196.75	.80	SH	CLY MED HRD		0	CORED
63	FC 347	C	196.75	197.05	.30	ST	LIT GRY HRD		0	CORED
64	FC 347	C	197.05	197.85	.80	SH	CLY MED SFT		0	CORED
65	FC 347	C	197.85	198.30	.45	SH			0	CORED LOSS
66	FC 347	C	198.30	200.80	2.50	SH	CLY MED SFT		0	CORED
67	FC 347	C	200.80	201.70	.90	ST	CLY HRD		0	CORED
68	FC 347	C	201.70	203.00	1.30	SH	CLY MED HRD		0	CORED
69	FC 347	C	203.00	204.00	1.00	SH	BH		0	CORED LOSS

			SEAM CODE	SAMP NO	SAMPLE DEPTH FROM	SAMPLE DEPTH TO	ANALYSIS CODE	PROXIMATE ANALYSIS %MOIS	%VOL	%CARB	%ASH	%SUL	BTU	EQUIL. MOIST	F P
1	FC 347	D	IJ	1	173.00	173.50	1	3.4	.0	.0	80.2	.28	0	.00	F
2	FC 347	D	IJ	2	173.00	173.50	2	.0	.0	.0	83.0	.29	0	.00	F
3	FC 347	D	IJ	3	192.55	193.00	1	4.1	.0	.0	86.2	.07	713	.00	F
4	FC 347	D	IJ	4	192.55	193.00	2	.0	.0	.0	89.9	.07	744	.00	F

			SEAM CODE	SAMP NO	SP GR	TYPE CODE	FLOAT SINK DATA % WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE
1	FC 347	G	IJ	1	0001601	DF	9773	.00	7.72	.86	0	0001
2	FC 347	G	IJ	2	0001601	DF	9670	.00	5.69	.86	0	0001
3	FC 347	G	IJ	3	0001601	DF	9688	.00	8.83	1.09	0	0001

			SEAM CODE	SAMP NO	SP GR	TYPE CODE	FLOAT SINK DATA % WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE
4	FC 347	G	IJ	4	0001601	DF	9017	.00	9.87	.48	0	0001
5	FC 347	G	IJ	5	0001601	DF	9817	.00	4.23	.37	0	0001
6	FC 347	G	IJ	6	0001601	DF	9353	.00	7.46	.35	0	0001
7	FC 347	G	IJ	7	0001601	DF	9929	.00	6.22	.39	0	0001
8	FC 347	G	IJ	8	0001601	DF	9933	.00	7.84	.58	0	0001
9	FC 347	G	IJ	9	0001601	DF	9953	.00	5.18	.37	0	0001
10	FC 347	G	IJ	0	0001601	DF	9360	.00	5.06	.42	0	0001
11	FC 347	G	IJ	1	0001601	DS	0227	.00	38.98	10.20	0	0001
12	FC 347	G	IJ	2	0001601	DS	0330	.00	34.14	2.34	0	0001
13	FC 347	G	IJ	3	0001601	DS	0312	.00	47.03	2.16	0	0001
14	FC 347	G	IJ	4	0001601	DS	0983	.00	56.99	.94	0	0001
15	FC 347	G	IJ	5	0001601	DS	0183	.00	35.13	.24	0	0001
16	FC 347	G	IJ	6	0001601	DS	0647	.00	38.84	.22	0	0001
17	FC 347	G	IJ	7	0001601	DS	0071	.00	66.52	.28	0	0001
18	FC 347	G	IJ	8	0001601	DS	0167	.00	33.12	.13	0	0001
19	FC 347	G	IJ	9	0001601	DS	0047	.00	28.37	1.63	0	0001
20	FC 347	G	IJ	0	0001601	DS	0640	.00	46.03	.29	0	0001

SEQ NO = 1 DRILL HOLE NO = FC 348 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 32

SECTION CODE = SURFACE ELEV. = 5932.31 HOW DET. = 6

N-COORD = 192479 E-COORD = 2066203 SOURCE = 2 LOCATION = 1

THK CORED = 173.20 THK N-CORED = 52.00 USGS = SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 348 FORMAT = B PROPERTY OR FARM = DRILLER = DANIELS

DRILL CONTR = DATE DRILLED = 0774

TWP OR PLACE = COMMENTS =

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 348	C	.00	31.00	31.00	ST			0	
4	FC 348	C	31.00	47.00	16.00	GR			0	
5	FC 348	C	47.00	52.00	5.00	SH			0	
6	FC 348	C	52.00	54.60	2.60	SH	DRK GRY		0	CORED
7	FC 348	C	54.60	55.00	.40	ND			0	CORED LOSS
8	FC 348	C	55.00	63.80	8.80	SH	DRK GRY		0	CORED
9	FC 348	C	63.80	64.00	.20	ND			0	CORED LOSS
10	FC 348	C	64.00	73.20	9.20	SH	SLY HRD		0	CORED
11	FC 348	C	73.20	74.00	.80	ND			0	CORED LOSS
12	FC 348	C	74.00	78.10	4.10	SH	CRB SLY		0	CORED
13	FC 348	C	78.10	78.50	.40	ND			0	CORED LOSS
14	FC 348	C	78.50	90.40	11.90	SS	BLK HRD		0	CORED
15	FC 348	C	90.40	137.15	46.75	SS	GRY HRD		0	CORED
16	FC 348	C	137.15	137.40	.25	SH	BLK		0	CORED
17	FC 348	C	137.40	138.45	1.05	SS	HRD		0	CORED
18	FC 348	C	138.45	138.60	.15	SH	BLK		0	CORED
19	FC 348	C	138.60	141.45	2.85	SS	HRD		0	CORED
20	FC 348	C	141.45	141.55	.10	SH	BLK		0	CORED
21	FC 348	C	141.55	183.90	42.35	SS	HRD		0	CORED
22	FC 348	C	183.90	187.50	3.60	SS	SLY		0	CORED
23	FC 348	C	187.50	188.30	.80	CO		J	1	CORED
24	FC 348	C	188.30	188.60	.30	BO			0	CORED
25	FC 348	C	188.60	189.50	.90	SH	CRB		0	CORED
26	FC 348	C	189.50	190.70	1.20	SH	SLY MED HRD		0	CORED
27	FC 348	C	190.70	190.80	.10	ND			0	CORED LOSS
28	FC 348	C	190.80	191.30	.50	SH	CRB MED SFT		0	CORED
29	FC 348	C	191.30	192.80	1.50	CO		J	3	CORED
30	FC 348	C	192.80	192.95	.15	SH	CRB MED SFT		0	CORED
31	FC 348	C	192.95	193.55	.60	ST	MED HRD		0	CORED LOSS
32	FC 348	C	193.55	200.50	6.95	CO		UI	0	
33	FC 348	C	200.50	202.10	1.60	SH			0	
34	FC 348	C	202.10	212.90	10.80	CO		LI	0	
35	FC 348	C	212.90	217.65	4.75	ST	HRD		0	CORED
36	FC 348	C	217.65	222.25	4.60	SH	CLY MED SFT		0	CORED

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
37	FC 348	C	222.25	222.75	.50	SH	SLY MED HRD		0	CORED
38	FC 348	C	222.75	224.60	1.85	ST	SHY MED HRD		0	CORED
39	FC 348	C	224.60	225.20	.60	SH	SLY CLY MED BH		0	CORED

			SEAM CODE	SAMP NO	SAMPLE DEPTH FROM	SAMPLE DEPTH TO	ANALYSIS CODE	PROXIMATE ANALYSIS %MOIS	%VOL	%CARB	%ASH	%SUL	BTU	EQUIL. MOIST	F P
1	FC 348	D		1	190.80	191.30	1	5.3	.0	.0	63.7	2.79	3751	.00	F
2	FC 348	D		1	190.80	191.30	2	.0	.0	.0	67.3	2.95	3962	.00	F
3	FC 348	D	IJ	2	192.80	193.55	1	4.3	.0	.0	79.3	.89	674	.00	F
4	FC 348	D	IJ	2	192.80	193.55	2	.0	.0	.0	82.9	.93	704	.00	F
5	FC 348	D		3	212.90	213.50	1	.7	.0	.0	93.4	.03	528	.00	F
6	FC 348	D		3	212.90	213.50	2	.0	.0	.0	94.0	.03	532	.00	F

			SEAM CODE	SAMP NO	SP GR	TYPE CODE	FLOAT SINK DATA % WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE
1	FC 348	G	IJ	1	0001601	DF	9369	.00	16.22	4.16	0	0001
2	FC 348	G	IJ	2	0001601	DF	9400	.00	8.11	1.44	0	0001
3	FC 348	G	IJ	3	0001601	DF	9818	.00	6.43	1.38	0	0001
4	FC 348	G	IJ	4	0001601	DF	9953	.00	5.84	1.29	0	0001
5	FC 348	G	IJ	5	0001601	DF	9616	.00	11.04	.81	0	0001
6	FC 348	G	IJ	6	0001601	DF	9705	.00	5.49	1.09	0	0001
8	FC 348	G	IJ	8	0001601	DF	9917	.00	6.03	.52	0	0001
9	FC 348	G	IJ	9	0001601	DF	9478	.00	12.91	.50	0	0001
10	FC 348	G	IJ	0	0001601	DF	9880	.00	5.85	.61	0	0001
11	FC 348	G	IJ	1	0001601	DF	9659	.00	5.79	.49	0	0001
12	FC 348	G	IJ	2	0001601	DS	0631	.00	39.89	9.14	0	0001
13	FC 348	G	IJ	3	0001601	DS	0600	.00	41.32	9.19	0	0001
14	FC 348	G	IJ	4	0001601	DS	0182	.00	34.00	1.06	0	0001
15	FC 348	G	IJ	5	0001601	DS	0047	.00	39.76	4.53	0	0001
16	FC 348	G	IJ	6	0001601	DS	0384	.00	45.26	.72	0	0001
17	FC 348	G	IJ	7	0001601	DS	0295	.00	37.54	21.36	0	0001
18	FC 348	G	IJ	8	0001601	DS	0477	.00	30.52	2.00	0	0001
19	FC 348	G	IJ	9	0001601	DS	0083	.00	37.44	.52	0	0001
20	FC 348	G	IJ	0	0001601	DS	0522	.00	40.51	.44	0	0001
21	FC 348	G	IJ	1	0001601	DS	0120	.00	26.48	.62	0	0001
22	FC 348	G	IJ	2	0001601	DS	0341	.00	55.08	.30	0	0001
23	FC 348	G	IJ	3	0001601	DF	9541	.00	8.38	.60	0	0001

SEQ NO = 1 DRILL HOLE NO = FC 360 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 28

SECTION CODE = SURFACE ELEV. = 6070.44 HOW DET. = 6

N-COORD = 198348 E-COORD = 2072637 SOURCE = 2 LOCATION = 1

THK CORED = .00 THK N-CORED = .00 USGS = SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 360 FORMAT = B PROPERTY OR FARM = DRILLER = L.C. KNIGHT

DRILL CONTR = DANIELS #1 DATE DRILLED = 0475

TWP OR PLACE = COMMENTS =

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 360	C	.00	29.00	29.00	CL	BRN		0	
4	FC 360	C	29.00	215.00	186.00	SH	BLU		0	
5	FC 360	C	215.00	286.00	71.00	SS	GRY	TF	0	
6	FC 360	C	286.00	289.74	3.74	CO		J	0	
7	FC 360	C	289.74	291.42	1.68	SH			0	
8	FC 360	C	291.42	292.00	.58	CO	SHY		0	
9	FC 360	C	292.00	295.70	3.70	SH	CAR		0	
10	FC 360	C	295.70	299.00	3.30	CO		UI	0	
11	FC 360	C	299.00	313.00	14.00	CO		LI	0	
12	FC 360	C	313.00	324.00	11.00	SS	GRY		0	
13	FC 360	C	324.00	325.50	1.50	CO			0	
14	FC 360	C	325.50	363.00	37.50	SS	GRY		0	
15	FC 360	C	363.00	375.00	12.00	SH	SDY		0	
16	FC 360	C	375.00	377.00	2.00	CO		G	0	
17	FC 360	C	377.00	388.00	11.00	CO			0	
18	FC 360	C	388.00	401.00	13.00	SS	GRY		0	
19	FC 360	C	401.00	416.00	15.00	CO		D	0	
20	FC 360	C	416.00	417.00	1.00	SH	BLU		0	
21	FC 360	C	417.00	418.00	1.00	CO		C	0	
22	FC 360	C	418.00	522.00	104.00	SS	GRY		0	
23	FC 360	C	522.00	527.00	5.00	SH	RAD		0	
24	FC 360	C	527.00	556.00	29.00	SS	GRY	BH	0	

SEQ NO = 1 DRILL HOLE NO = FC 362 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 27

SECTION CODE = SURFACE ELEV. = 6053.16 HOW DET. = 6

N-COORD = 197370 E-COORD = 2074274 SOURCE = 2 LOCATION = 1

THK CORED = .00 THK N-CORED = .00 USGS = EMERY EAST SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 362 FORMAT = B PROPERTY OR FARM = DRILLER = L.C. KNIGHT

DRILL CONTR = DANIELS DATE DRILLED = 0475

TWP OR PLACE = STRIP 1 COMMENTS = COMPOSITE LOG

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 362	C	.00	10.00	10.00	SH	BLU		0	
4	FC 362	C	10.00	13.70	3.70	SH	GRY CAS CLY SFT		0	
5	FC 362	C	13.70	20.00	6.30	ND			0	LOST
6	FC 362	C	20.00	25.90	5.90	SH	CAS GRY SDY		0	FRACTURED
7	FC 362	C	25.90	30.00	4.10	ND			0	LOST
8	FC 362	C	30.00	40.00	10.00	SH	CAS DRK GRY SDY		0	FRK EVEN BD
9	FC 362	C	40.00	50.00	10.00	SH	CAS DRK GRY SDY		0	SAME
10	FC 362	C	50.00	60.00	10.00	SH	CAS DRK GRY SDY		0	SAME
11	FC 362	C	60.00	65.30	5.30	SH	CAS DRK GRY SDY		0	EVEN BEDDED
12	FC 362	C	65.30	70.00	4.70	SS	CAS MGR CGR	TF	0	POROUS
13	FC 362	C	70.00	80.00	10.00	SS	CAS MGR CGR HRD		0	POROUS
14	FC 362	C	80.00	90.00	10.00	SS	CAS MGR		0	
15	FC 362	C	90.00	100.00	10.00	SS	CAS MGR HRD COL		0	AT TOP PORS
16	FC 362	C	100.00	110.00	10.00	SS	CAS MGR CGR MED		0	HRD POROUS
17	FC 362	C	110.00	120.00	10.00	SS	CAS HRD MGR CGR		0	POROUS
18	FC 362	C	120.00	130.00	10.00	SS	CAS MGR CGR MES		0	HRD POROUS
19	FC 362	C	130.00	133.10	3.10	SS	CAS GRY MGR HRD		0	
20	FC 362	C	133.10	133.60	.50	SS	CRB COL MGR HRD		0	
21	FC 362	C	133.60	134.00	.40	CO	SHY	J	0	
22	FC 362	C	134.00	134.45	.45	CO	SHY	J	0	
23	FC 362	C	134.45	136.00	1.55	CO	MED BRT HRD SLY	J	0	3" PTG BOTM
24	FC 362	C	136.00	137.25	1.25	CO	MED HRD BRT CRB	J	0	ZONE BOTTOM
25	FC 362	C	137.25	138.00	.75	SH	GRY SDY SFT		0	
26	FC 362	C	138.00	138.30	.30	CL	GRY SDY SFT		0	
27	FC 362	C	138.30	138.60	.30	SH	CLY COL CRB		0	
28	FC 362	C	138.60	139.90	1.30	CO	MED BRT HRD	UI	0	BLOCKY
29	FC 362	C	139.90	140.00	.10	SH	CRB COL	UI	0	
30	FC 362	C	140.00	140.40	.40	SH	CRB COL	UI	0	
31	FC 362	C	140.40	144.00	3.60	CO	MED BRT HRD CAS	UI	0	FRK 1/2" ST
32	FC 362	C	144.00	158.40	14.40	CO	MED BRT HRD CAS	LI	0	FRK FILLING
33	FC 362	C	158.40	159.35	.95	SH	COL SDY		0	
34	FC 362	C	159.35	160.00	.65	ST	GRY HRD BH		0	

SEQ NO = 1 DRILL HOLE NO = FC 363 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 27

SECTION CODE = SURFACE ELEV. = 6043.99 HOW DET. = 6

N-COORD = 196400 E-COORD = 2074166 SOURCE = 2 LOCATION = 1

THK CORED = .00 THK N-CORED = .00 USGS = EMERY EAST SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 363 FORMAT = B PROPERTY OR FARM = DRILLER = J. GORDON

DRILL CONTR = WARDLAW #3 DATE DRILLED = 0475

TWP OR PLACE = STRIP 1 COMMENTS = COMPOSITE LOG

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 363	C	.00	20.00	20.00	SH	SDY BRN		0	
4	FC 363	C	20.00	22.10	2.10	CL	CAS GRY SFT		0	
5	FC 363	C	22.10	26.60	4.50	SS	MGR HRD CLY CGR		0	
6	FC 363	C	26.60	30.00	3.40	ND			0	LOST
7	FC 363	C	30.00	40.00	10.00	SS	CAS RED YEL MGR		0	CGR POROUS
8	FC 363	C	40.00	100.00	60.00	SS	CAS MGR CGR MED		0	HRD YEL POR
9	FC 363	C	100.00	101.00	1.00	SS			0	
10	FC 363	C	101.00	101.30	.30	SS	CRB COL		0	
11	FC 363	C	101.30	101.80	.50	CO	HRD BRT	J	0	BLOCKY
12	FC 363	C	101.80	101.90	.10	SS	CRB COL	J	0	
13	FC 363	C	101.90	102.00	.10	CO	HRD BRT	J	0	
14	FC 363	C	102.00	102.40	.40	CO	HRD BRT	J	0	BLOCKY
15	FC 363	C	102.40	102.50	.10	CO	SHY	J	0	
16	FC 363	C	102.50	104.00	1.50	CO	HRD MED BRT FRK	J	0	BLOCKY
17	FC 363	C	104.00	105.00	1.00	CO	HRD MED BRT FRK	J	0	BLOCKY
18	FC 363	C	105.00	105.10	.10	CO	SHY	J	0	
19	FC 363	C	105.10	105.80	.70	CL	GRY SDY SFT		0	
20	FC 363	C	105.80	106.00	.20	SH	CRB COL SDY		0	
21	FC 363	C	106.00	106.15	.15	SH	CRB SDY COL		0	
22	FC 363	C	106.15	107.75	1.60	CO	HRD MED BRT	UI	0	BLOCKY
23	FC 363	C	107.75	108.00	.25	SH	CRB COL SFT	UI	0	
24	FC 363	C	108.00	108.15	.15	SH	CRB COL SFT	UI	0	
25	FC 363	C	108.15	110.00	1.85	CO	HRD MED BRT	UI	0	1/2" PY BTM
26	FC 363	C	110.00	112.00	2.00	CO	HRD MED BRT	UI	0	BLOCKY
27	FC 363	C	112.00	112.50	.50	CO	HRD MED BRT	UI	0	
28	FC 363	C	112.50	112.80	.30	CA	SDY SLY		0	
29	FC 363	C	112.80	114.00	1.20	CO	HRD MED BRT	LI	0	BLOCKY
30	FC 363	C	114.00	120.00	6.00	CO	HRD MED BRT	LI	0	BLOCKY HRD
31	FC 363	C	120.00	126.60	6.60	CO	HRD MED BRT	LI	0	1/2" PTY BN
32	FC 363	C	126.60	126.90	.30	SH	CRB SFT		0	EVEN BEDDED
33	FC 363	C	126.90	127.50	.60	CL	GRY SDY SFT		0	
34	FC 363	C	127.50	128.00	.50	SH	SDY CLY SFT MED		0	HRD
35	FC 363	C	128.00	130.00	2.00	SH	GRY SDY CLY SFT		0	
36	FC 363	C	130.00	133.00	3.00	SH	GRY HRD SDY CLY		0	

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
37	FC 363	C	133.00	160.00	27.00	SS	GRY		0	
38	FC 363	C	160.00	164.50	4.50	SS	GRY		0	
39	FC 363	C	164.50	173.80	9.30	SH	GRY		0	
40	FC 363	C	173.80	175.30	1.50	CO	HRD		0	
41	FC 363	C	175.30	176.10	.80	CL	GRY SDY		0	
42	FC 363	C	176.10	179.90	3.80	CO	HRD	G	0	
43	FC 363	C	179.90	181.90	2.00	CL	GRY SDY		0	
44	FC 363	C	181.90	184.50	2.60	SH	HRD CAR		0	
45	FC 363	C	184.50	220.50	36.00	SS	GRY		0	
46	FC 363	C	220.50	222.20	1.70	CO	SHY SFT	D	0	
47	FC 363	C	222.20	228.70	6.50	CO	HRD	D	0	
48	FC 363	C	228.70	229.60	.90	SH	SDY GRY		0	
49	FC 363	C	229.60	236.00	6.40	CO	HRD	C	0	
50	FC 363	C	236.00	237.10	1.10	CL	GRY SDY		0	
51	FC 363	C	237.10	239.90	2.80	SS	GRY		0	
52	FC 363	C	239.90	245.90	6.00	SH	GRY		0	
53	FC 363	C	245.90	256.10	10.20	SS	GRY		0	
54	FC 363	C	256.10	257.10	1.00	CO	HRD		0	
55	FC 363	C	257.10	263.60	6.50	SH	GRY		0	
56	FC 363	C	263.60	266.10	2.50	CO	HRD	A	0	
57	FC 363	C	266.10	270.00	3.90	SH	SDY GRY		0	
58	FC 363	C	270.00	317.80	47.80	SS	GRY		0	
59	FC 363	C	317.80	339.50	21.70	SH	DRK		0	
60	FC 363	C	339.50	350.00	10.50	SS	GRY		0	
61	FC 363	C	350.00	351.60	1.60	SH	GRY		0	
62	FC 363	C	351.60	400.00	48.40	SS	GRY BH		0	

SEQ NO = 1 DRILL HOLE NO = FC 364 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 27

SECTION CODE = SURFACE ELEV. = 6061.57 HOW DET. = 6

N-COORD = 197247 E-COORD = 2076041 SOURCE = 2 LOCATION = 1

THK CORED = .00 THK N-CORED = .00 USGS = SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 364 FORMAT = B PROPERTY OR FARM = DRILLER = J. GORDON

DRILL CONTR = WARDLAW #3 DATE DRILLED = 0475

TWP OR PLACE = STRIP 1 COMMENTS = COMPOSTIE LOG

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 364	C	.00	1.90	1.90	SH	BRN		0	
4	FC 364	C	1.90	20.00	18.10	SS	BRN		0	
5	FC 364	C	20.00	30.00	10.00	SS	CAS LIT GRY MGR		0	CGRHRD PORS
6	FC 364	C	30.00	40.00	10.00	SS	LIT GRY MGR CGR		0	PORHRDCRBCO
7	FC 364	C	40.00	50.00	10.00	SS	LIT GRY MGR CGR		0	POROUS HARD
8	FC 364	C	50.00	50.70	.70	SS	LIT GRY MGR HRD		0	POROUS HARD
9	FC 364	C	50.70	53.00	2.30	SS	LIT GRY MGR HRD		0	COL LAMINAT
10	FC 364	C	53.00	54.00	1.00	SS	COL		0	
11	FC 364	C	54.00	55.00	1.00	CO	PYT SLY	J	0	
12	FC 364	C	55.00	56.00	1.00	CO	MED BRT HRD PYT	J	0	NOD BOTTOM
13	FC 364	C	56.00	57.00	1.00	CO	MED BRT HRD PYT	J	0	
14	FC 364	C	57.00	57.80	.80	SH			0	
15	FC 364	C	57.80	58.50	.70	CO	GRY SDY	UI	0	
16	FC 364	C	58.50	60.00	1.50	CO	MED BRT HRD	UI	0	
17	FC 364	C	60.00	65.10	5.10	CO	MED BRT HRD VRT	UI	0	
18	FC 364	C	65.10	70.00	4.90	CO	MED BRT HRD VRT	LI	0	
19	FC 364	C	70.00	77.25	7.25	CO	MED BRT HRD CAS	LI	0	
20	FC 364	C	77.25	79.30	2.05	SH	GRY SDY HRD CRB		0	COL TOP
21	FC 364	C	79.30	79.80	.50	SH	GRY MED HRD		0	
22	FC 364	C	79.80	100.00	20.20	SS	GRY BH		0	

SEQ NO = 1 DRILL HOLE NO = FC 365 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 33

SECTION CODE = SURFACE ELEV. = 6064.50 HOW DET. = 6

N-COORD = 193279 E-COORD = 2071590 SOURCE = 2 LOCATION = 1

THK CORED = .00 THK N-CORED = .00 USGS = SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 365 FORMAT = B PROPERTY OR FARM = DRILLER = L.C. KNIGHT

DRILL CONTR = DANIELS DATE DRILLED = 0475

TWP OR PLACE = COMMENTS = COMPOSITE LOG

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 365	C	.00	15.00	15.00	SS	LIT GRY MGR CRG		0	HRD POR TAN
4	FC 365	C	15.00	20.00	5.00	SS	BRN		0	
5	FC 365	C	20.00	30.00	10.00	SS	GRY MED CGR HRD		0	POROUS
6	FC 365	C	30.00	40.00	10.00	SS	LIT GRY CGR MGR		0	HRD POROUS
7	FC 365	C	40.00	50.00	10.00	SS	LIT GRY CGR HRD		0	MED HRD POR
8	FC 365	C	50.00	58.60	8.60	SS	LIT GRY CGR RED		0	MED HRD POR
9	FC 365	C	58.60	60.00	1.40	SH	DRK GRY SDY MED		0	HRD EVN BED
10	FC 365	C	60.00	70.00	10.00	SH	DRK GRY SDY MED		0	HRD EVEN BD
11	FC 365	C	70.00	71.70	1.70	SH	DRK GRY SDY MED		0	HRD EVN BED
12	FC 365	C	71.70	80.00	8.30	SS	LIT GRY CAS SHY		0	RED CGR
13	FC 365	C	80.00	90.00	10.00	SS	CAS CGR HRD MGR		0	POROUS
14	FC 365	C	90.00	100.00	10.00	SS	CAS CGR HRD		0	
15	FC 365	C	100.00	110.00	10.00	SS	CAS SHY		0	
16	FC 365	C	110.00	110.30	.30	SH	CRB COL SDY PYT		0	
17	FC 365	C	110.30	112.00	1.70	CO	MED BRT HRD	J	0	PY LAM BLKY
18	FC 365	C	112.00	114.00	2.00	CO	MED BRT HRD PYT	J	0	LAMCRBBTM
19	FC 365	C	114.00	114.45	.45	CL	GRY SDY SFT		0	LOST
20	FC 365	C	114.45	114.95	.50	CL	GRY SDY SFT		0	
21	FC 365	C	114.95	115.25	.30	SH	CRB CLY		0	
22	FC 365	C	115.25	116.00	.75	CO	HRD MED BRT	UI	0	BLOCKY
23	FC 365	C	116.00	118.00	2.00	CO	HRD MED BRT	UI	0	BLOCKY
24	FC 365	C	118.00	120.00	2.00	CO	MED BRT HRD	UI	0	BLOCKY
25	FC 365	C	120.00	130.00	10.00	CO	HRD PYT MED BRT	LI	0	1/2" SLTSTN
26	FC 365	C	130.00	135.80	5.80	CO	HRD MED BRT	LI	0	BLOCKY
27	FC 365	C	135.80	140.30	4.50	SH	GRY SDY CLY BH		0	CRB TOP

SEQ NO = 1 DRILL HOLE NO = FC 378 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 29

SECTION CODE = SURFACE ELEV. = 6049.66 HOW DET. = 6

N-COORD = 197497 E-COORD = 2066392 SOURCE = 0 LOCATION = 6

THK CORED = .00 THK N-CORED = .00 USGS = EMERY WEST SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 378 FORMAT = B PROPERTY OR FARM = DRILLER = GORDON

DRILL CONTR = WARDLAW CON. DATE DRILLED = 0176

TWP OR PLACE = COMMENTS = CONTINUOUS CORE

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 378	C	.00	453.00	453.00	SH	DRK GRY		0	PLUGGED
4	FC 378	C	453.00	460.00	7.00	SS	MGR HRD GRY	TF	0	PLUGGED
5	FC 378	C	460.00	462.80	2.80	SS	MGR HRD GRY		0	
6	FC 378	C	462.80	463.20	.40	CO	PYS DUL	K	1	
7	FC 378	C	463.20	463.45	.25	BO	PYS	K	1	
8	FC 378	C	463.45	466.15	2.70	ST	SLK GRY FRK		0	
9	FC 378	C	466.15	469.20	3.05	SS	FGR HRD LIT GRY		0	
10	FC 378	C	469.20	470.00	.80	ND			0	LOST
11	FC 378	C	470.00	472.05	2.05	ST	PYT MED HRD		0	
12	FC 378	C	472.05	472.50	.45	BO			0	
13	FC 378	C	472.50	473.40	.90	CO	CAS FRK DUL	K	3	
14	FC 378	C	473.40	473.60	.20	BO			0	
15	FC 378	C	473.60	474.80	1.20	SH	CRB FRK BLK		0	
16	FC 378	C	474.80	475.35	.55	ST	MED HRD CRB GRY		0	
17	FC 378	C	475.35	480.00	4.65	SS	FGR HRD SHY		0	
18	FC 378	C	480.00	481.20	1.20	ST	HRD SDY DRK GRY		0	
19	FC 378	C	481.20	484.25	3.05	SS	FGR LIT GRY FRK		0	
20	FC 378	C	484.25	486.15	1.90	ST	HRD SOY GRY		0	
21	FC 378	C	486.15	489.10	2.95	SS	FGR LIT GRY FRK		0	
22	FC 378	C	489.10	489.90	.80	ST	FRK SDY DRK GRY		0	
23	FC 378	C	489.90	490.00	.10	ST			0	LOST
24	FC 378	C	490.00	491.15	1.15	SS	FGR LIT GRY HRD		0	FRK
25	FC 378	C	491.15	491.35	.20	ST	BLK		0	
26	FC 378	C	491.35	500.80	9.45	SS	MGR HRD LIT GRY		0	FRK
27	FC 378	C	500.80	501.00	.20	SH	CRB BLK		0	
28	FC 378	C	501.00	502.85	1.85	ST	HRD DRK GRY CRB		0	
29	FC 378	C	502.85	506.80	3.95	SH	DRK GRY FSL SDY		0	
30	FC 378	C	506.80	507.30	.50	ST	HRD SDY DRK GRY		0	
31	FC 378	C	507.30	508.35	1.05	CO	PYS DUL BNY	J	1	
32	FC 378	C	508.35	508.70	.35	BO			0	
33	FC 378	C	508.70	509.15	.45	SH	DRK GRY CRB SLK		0	
34	FC 378	C	509.15	511.50	2.35	CO	PYT CAS FRK DUL	J	3	
35	FC 378	C	511.50	512.00	.50	BO			0	
36	FC 378	C	512.00	512.80	.80	SS	MGR LIT GRY SFT		0	

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
37	FC 378	C	512.80	521.00	8.20	CO		UI	0	
38	FC 378	C	521.00	534.00	13.00	CO		LI	0	
39	FC 378	C	534.00	537.00	3.00	SH	SLK GRY FRK		0	
40	FC 378	C	537.00	539.65	2.65	ST	HRD GRY SDY		0	
41	FC 378	C	539.65	543.50	3.85	SS	LIT GRY FSL FGR		0	
42	FC 378	C	543.50	544.00	.50		BH		0	LOST

			SEAM CODE	SAMP NO	SAMPLE DEPTH FROM	SAMPLE DEPTH TO	ANALYSIS CODE	PROXIMATE ANALYSIS %MOIS	%VOL	%CARB	%ASH	%SUL	BTU	EQUIL. MOIST	F P
1	FC 378	D	IJ	1	512.00	512.80	2	.0	.0	.0	.0	.00	0	.00	
2	FC 378	D	IJ	2	512.80	513.80	2	.0	.0	.0	.0	.00	0	.00	
3	FC 378	D	IJ	3	514.00	516.00	2	.0	.0	.0	.0	.00	0	.00	
4	FC 378	D	IJ	4	516.00	518.00	2	.0	.0	.0	.0	.00	0	.00	
5	FC 378	D	IJ	5	518.00	520.00	2	.0	.0	.0	.0	.00	0	.00	
6	FC 378	D	IJ	6	520.00	522.00	2	.0	.0	.0	.0	.00	0	.00	
7	FC 378	D	IJ	7	522.00	524.00	2	.0	.0	.0	.0	.00	0	.00	
8	FC 378	D	IJ	8	524.00	526.00	2	.0	.0	.0	.0	.00	0	.00	
9	FC 378	D	IJ	9	526.00	528.00	2	.0	.0	.0	.0	.00	0	.00	
10	FC 378	D	IJ	0	528.00	530.00	2	.0	.0	.0	.0	.00	0	.00	
11	FC 378	D	IJ	A	530.00	532.00	2	.0	.0	.0	.0	.00	0	.00	
12	FC 378	D	IJ	B	532.00	533.90	2	.0	.0	.0	.0	.00	0	.00	
13	FC 378	D	IJ	C	534.00	534.50	2	.0	.0	.0	.0	.00	0	.00	

			SEAM CODE	SAMP NO	SP GR	TYPE CODE	FLOAT SINK DATA % WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE
1	FC 378	G	IJ	1	000999	DF	0000	.00	88.27	.41	329	2000
2	FC 378	G	IJ	2	000160	DF	4703	.00	13.93	1.16	12274	2000
3	FC 378	G	IJ	2	160999	DS	5297	.00	53.34	9.80	6151	2000
4	FC 378	G	IJ	2	000999	DF	0000	.00	34.81	5.74	9031	2000
5	FC 378	G	IJ	3	000160	DF	9821	.00	7.08	.85	13239	2000
6	FC 378	G	IJ	3	160999	DS	0179	.00	40.70	5.37	7415	2000
7	FC 378	G	IJ	3	000999	DF	0000	.00	7.68	.93	13135	2000
8	FC 378	G	IJ	4	000160	DF	9480	.00	6.74	.57	13275	2000
9	FC 378	G	IJ	4	160999	DS	0520	.00	44.68	.45	7026	2000
10	FC 378	G	IJ	4	000999	DF	0000	.00	8.71	.56	12950	2000
11	FC 378	G	IJ	5	000160	DF	8723	.00	12.21	.44	12647	2000
12	FC 378	G	IJ	5	160999	DS	1277	.00	44.43	.37	7427	2000
13	FC 378	G	IJ	5	000999	DF	0000	.00	16.32	.43	11980	2000
14	FC 378	G	IJ	6	000160	DF	9742	.00	4.87	.37	13671	2000
15	FC 378	G	IJ	6	160999	DS	0258	.00	29.61	.44	9107	2000
16	FC 378	G	IJ	6	000999	DF	0000	.00	5.51	.37	13553	2000
17	FC 378	G	IJ	7	000160	DF	8798	.00	10.75	.41	12804	2000
18	FC 378	G	IJ	7	160999	DS	1202	.00	51.01	.28	5939	2000
19	FC 378	G	IJ	7	000999	DF	0000	.00	15.59	.39	11979	2000
20	FC 378	G	IJ	8	000160	DF	9789	.00	6.39	.40	13530	2000
21	FC 378	G	IJ	8	160999	DS	0211	.00	40.25	.92	5744	2000

			SEAM CODE	SAMP NO	SP GR	TYPE CODE	FLOAT SINK DATA % WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE
22	FC 378	G	IJ	8	000999	DF	0000	.00	7.10	.41	13366	2000
23	FC 378	G	IJ	9	000160	DF	9559	.00	9.98	.39	13114	2000
24	FC 378	G	IJ	9	160999	DS	0441	.00	31.67	.43	8013	2000
25	FC 378	G	IJ	9	000999	DF	0000	.00	10.94	.39	12889	2000
26	FC 378	G	IJ	0	000160	DF	9741	.00	7.34	.47	13355	2000
27	FC 378	G	IJ	0	160999	DS	0259	.00	40.48	.49	6594	2000
28	FC 378	G	IJ	0	000999	DF	0000	.00	8.20	.47	13180	2000
29	FC 378	G	IJ	A	000160	DF	9899	.00	5.15	.43	13706	2000
30	FC 378	G	IJ	A	160999	DS	0101	.00	32.92	1.03	8710	2000
31	FC 378	G	IJ	A	000999	DF	0000	.00	5.43	.44	13656	2000
32	FC 378	G	IJ	B	000160	DF	9871	.00	4.97	.55	13674	2000
33	FC 378	G	IJ	B	160999	DS	0129	.00	30.73	.90	9211	2000
34	FC 378	G	IJ	B	000999	DF	0000	.00	5.30	1.70	13616	2000
35	FC 378	G	IJ	C	000999	DF	0000	.00	90.78	.27	84	2000

SEQ NO = 1 DRILL HOLE NO = FC 380 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 29

SECTION CODE = SURFACE ELEV. = 6005.01 HOW DET. = 0

N-COORD = 196295 E-COORD = 2066491 SOURCE = 0 LOCATION = 0

THK CORED = .00 THK N-CORED = .00 USGS = SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 380 FORMAT = B PROPERTY OR FARM = DRILLER = GORDON

DRILL CONTR = WARDLAW CON. DATE DRILLED = 1275

TWP OR PLACE = COMMENTS = COMPOSITE LOG

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 380	C	.00	9.40	9.40	SN			0	PLUGGED
4	FC 380	C	9.40	100.00	90.60	SH	SDY		0	PLUGGED
5	FC 380	C	100.00	109.98	9.98	ST	DRK GRY MED HRD		0	FSLCAS
6	FC 380	C	109.98	110.00	.02	ND			0	LOST
7	FC 380	C	110.00	200.00	90.00	SH	SDY		0	PLUGGED
8	FC 380	C	200.00	206.25	6.25	ST	DRK GRY MED HRD		0	CAS FSL
9	FC 380	C	206.25	210.00	3.75	ND			0	LOST
10	FC 380	C	210.00	300.00	90.00	SH	SDY		0	PLUGGED
11	FC 380	C	300.00	308.90	8.90	ST	GRY MED HRD FSL		0	CAS
12	FC 380	C	308.90	310.00	1.10	ND			0	LOST
13	FC 380	C	310.00	329.00	19.00	SH			0	
14	FC 380	C	329.00	329.00	.00	SS		TF	0	
15	FC 380	C	329.00	341.00	12.00	SS	GRY		0	
16	FC 380	C	341.00	350.49	9.49	SS	LIT GRY FGR MGR		0	HRD CAS
17	FC 380	C	350.49	351.52	1.03	CO			0	
18	FC 380	C	351.52	351.62	.10	BO			0	
19	FC 380	C	351.62	352.17	.55	SH	CRB COI PYS MED		0	HRD DRK GRY
20	FC 380	C	352.17	363.85	11.68	ST	SDY GRY MED HRD		0	CAS
21	FC 380	C	363.85	364.75	.90	SH	GRY MED HRD		0	
22	FC 380	C	364.75	365.28	.53	CO	PYT	K	1	
23	FC 380	C	365.28	365.39	.11	SH	DRK GRY MED HRD		0	
24	FC 380	C	365.39	367.39	2.00	CO	PYS FRK CAS FRK	K	3	
25	FC 380	C	367.39	371.00	3.61	SH	DRK GRY COI CRB		0	
26	FC 380	C	371.00	377.86	6.86	ST	LIT GRY SDY		0	
27	FC 380	C	377.86	408.30	30.44	SS	HRD MGR LIT GRY		0	
28	FC 380	C	408.30	409.15	.85	CO	PYS DUL		0	
29	FC 380	C	409.15	411.15	2.00	SH	DRK GRY CRB COI		0	
30	FC 380	C	411.15	411.85	.70	CO	CAS FRK PYS	J	0	
31	FC 380	C	411.85	412.25	.40	BO		J	0	
32	FC 380	C	412.25	414.05	1.80	CO	FRK CAS FRK	J	0	
33	FC 380	C	414.05	414.15	.10	SH	CRB DRK GRY MED		0	HRD
34	FC 380	C	414.15	414.35	.20	ST	DRK GRY CRB		0	
35	FC 380	C	414.35	415.85	1.50	SS	LIT GRY MGR HRD		0	
36	FC 380	C	415.85	421.80	5.95	CO		UI	0	

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
37	FC 380	C	421.80	422.90	1.10	SH			0	
38	FC 380	C	422.90	425.30	2.40	CO		LI	1	
39	FC 380	C	425.30	426.10	.80	SH			0	
40	FC 380	C	426.10	435.20	9.10	CO		LI	5	
41	FC 380	C	435.20	435.30	.10	SH	DRK GRY CRB COI		0	
42	FC 380	C	435.30	437.80	2.50	SH	GRY SFT SLK		0	
43	FC 380	C	437.80	440.00	2.20	ST	GRY MED HRD FRK		0	
44	FC 380	C	440.00	442.30	2.30	SS	LIT GRY FGR SHY		0	
45	FC 380	C	442.30	443.60	1.30	SH	DRK GRY SDY		0	
46	FC 380	C	443.60	445.80	2.20	SH	DRK GRY		0	GROUND-UP
47	FC 380	C	445.80	448.30	2.50	SH	SLY DRK GRY BH		0	MED HRD

			SEAM CODE	SAMP NO	SAMPLE DEPTH FROM	SAMPLE DEPTH TO	ANALYSIS CODE	PROXIMATE ANALYSIS %MOIS	%VOL	%CARB	%ASH	%SUL	BTU	EQUIL. MOIST	F P
1	FC 380	D	IJ	1	410.65	411.15	2	.0	.0	.0	.0	.00	0	.00	
2	FC 380	D	IJ	2	411.15	413.25	2	.0	.0	.0	.0	.00	0	.00	
3	FC 380	D	IJ	3	415.85	416.80	2	.0	.0	.0	.0	.00	0	.00	
4	FC 380	D	IJ	4	416.80	418.80	2	.0	.0	.0	.0	.00	0	.00	
5	FC 380	D	IJ	5	418.80	420.80	2	.0	.0	.0	.0	.00	0	.00	
6	FC 380	D	IJ	6	420.80	422.80	2	.0	.0	.0	.0	.00	0	.00	
7	FC 380	D	IJ	7	422.80	424.80	2	.0	.0	.0	.0	.00	0	.00	
8	FC 380	D	IJ	8	424.80	426.10	2	.0	.0	.0	.0	.00	0	.00	
9	FC 380	D	IJ	9	426.55	428.55	2	.0	.0	.0	.0	.00	0	.00	
10	FC 380	D	IJ	0	428.55	430.55	2	.0	.0	.0	.0	.00	0	.00	
11	FC 380	D	IJ	A	430.55	432.55	2	.0	.0	.0	.0	.00	0	.00	
12	FC 380	D	IJ	B	432.55	435.20	2	.0	.0	.0	.0	.00	0	.00	
13	FC 380	D	IJ	C	435.20	435.70	2	.0	.0	.0	.0	.00	0	.00	

			SEAM CODE	SAMP NO	SP GR	TYPE CODE	FLOAT SINK DATA % WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE
1	FC 380	G	IJ	1	000999	DF	0000	.00	66.59	2.85	3922	0000
2	FC 380	G	IJ	2	000160	DF	9010	.00	9.50	1.71	12944	0000
3	FC 380	G	IJ	2	160999	DS	0990	.00	49.24	3.89	6261	0000
4	FC 380	G	IJ	2	000999	DF	0000	.00	13.43	1.93	12282	0000
5	FC 380	G	IJ	3	000160	DF	8180	.00	12.63	2.13	12505	0000
6	FC 380	G	IJ	3	160999	DS	1820	.00	60.96	2.21	5301	0000
7	FC 380	G	IJ	3	000999	DF	0000	.00	21.43	2.14	11194	0000
8	FC 380	G	IJ	4	000160	DF	9820	.00	7.22	.98	13347	0000
9	FC 380	G	IJ	4	160999	DS	0180	.00	24.99	1.74	8361	0000
10	FC 380	G	IJ	4	000999	DF	0000	.00	7.54	.99	13257	0000
11	FC 380	G	IJ	5	000160	DF	9280	.00	12.16	1.14	12667	0000
12	FC 380	G	IJ	5	160999	DS	0720	.00	45.06	1.81	5534	0000
13	FC 380	G	IJ	5	000999	DF	0000	.00	14.53	1.19	12153	0000
14	FC 380	G	IJ	6	000160	DF	8760	.00	7.44	.79	13275	0000
15	FC 380	G	IJ	6	160999	DS	1240	.00	44.09	5.21	5694	0000
16	FC 380	G	IJ	6	000999	DF	0000	.00	11.98	1.34	12335	0000

			SEAM CODE	SAMP NO	SP GR	TYPE CODE	FLOAT SINK DATA % WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE
17	FC 380	G	IJ	7	000160	DF	9420	.00	4.74	.66	13881	0000
18	FC 380	G	IJ	7	160999	DS	0580	.00	43.26	.25	6944	0000
19	FC 380	G	IJ	7	000999	DF	0000	.00	6.97	.64	13479	0000
20	FC 380	G	IJ	8	000160	DF	9390	.00	11.37	.53	12682	0000
21	FC 380	G	IJ	8	160999	DS	0610	.00	55.77	.67	5109	0000
22	FC 380	G	IJ	8	000999	DF	0000	.00	14.08	.54	12220	0000
23	FC 380	G	IJ	9	000160	DF	9730	.00	7.05	.45	13516	0000
24	FC 380	G	IJ	9	160999	DS	0270	.00	31.86	.33	6832	0000
25	FC 380	G	IJ	9	000999	DF	0000	.00	7.72	.45	13336	0000
26	FC 380	G	IJ	0	000160	DF	9770	.00	9.46	.41	13081	0000
27	FC 380	G	IJ	0	160999	DS	0230	.00	23.43	.46	9174	0000
28	FC 380	G	IJ	0	000999	DF	0000	.00	9.78	.41	12991	0000
29	FC 380	G	IJ	A	000160	DF	9580	.00	4.60	.41	13868	0000
30	FC 380	G	IJ	A	160999	DS	0420	.00	38.85	.45	5728	0000
31	FC 380	G	IJ	A	000999	DF	0000	.00	6.04	.41	13526	0000
32	FC 380	G	IJ	B	000160	DF	9880	.00	5.06	.53	13713	0000
33	FC 380	G	IJ	B	160999	DS	0120	.00	32.89	.68	7341	0000
34	FC 380	G	IJ	B	000999	DF	0000	.00	5.39	.53	13637	0000
35	FC 380	G	IJ	C	000999	DF	0000	.00	79.81	.19	1894	0000

SEQ NO = 1 DRILL HOLE NO = FC 381 FORMAT = A STATE = 43 COUNTY = 015 TWP = 22S RANGE = 6E SECTION = 29

SECTION CODE = SURFACE ELEV. = 6130.64 HOW DET. = 0

N-COORD = 197919 E-COORD = 2067648 SOURCE = 0 LOCATION = 0

THK CORED = .00 THK N-CORED = .00 USGS = SZE.CD. =

SEQ NO. = 2 DRILL HOLE NO = FC 381 FORMAT = B PROPERTY OR FARM = DRILLER = GORDON

DRILL CONTR = WARDLAW CON. DATE DRILLED = 1175

TWP OR PLACE = COMMENTS = LOCATION QUESTIO

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
3	FC 381	C	.00	10.60	10.60	SN	BRN		0	PLUGGED
4	FC 381	C	10.60	28.20	17.60	GR	SDY		0	PLUGGED
5	FC 381	C	28.20	41.00	12.80	CL	BRN SDY		0	PLUGGED
6	FC 381	C	41.00	45.00	4.00	SS			0	LOST BOULDR
7	FC 381	C	45.00	47.00	2.00	SH	GRY CAS		0	
8	FC 381	C	47.00	47.15	.15	MD	FSL CAS BRN		0	
9	FC 381	C	47.15	49.00	1.85	MD			0	LOST
10	FC 381	C	49.00	51.00	2.00	MD	FSL CAS BRN FRK		0	
11	FC 381	C	51.00	110.10	59.10	SH	DRK GRY MED HRD		0	FRK FSL
12	FC 381	C	110.10	263.60	153.50	SH	DRK		0	PLUGGED
13	FC 381	C	263.60	410.00	146.40	SH	GRY SDY		0	PLUGGED
14	FC 381	C	410.00	418.80	8.80	SH	DRK GRY MED HRD		0	CAS SDY
15	FC 381	C	418.80	420.00	1.20	SH			0	LOST
16	FC 381	C	420.00	490.00	70.00	SH	GRY SDY		0	PLUGGED
17	FC 381	C	490.00	501.84	11.84	SH	DRK GRY MED HRD		0	CAS
18	FC 381	C	501.84	502.23	.39	ST	DRK GRY HRD CAS		0	
19	FC 381	C	502.23	502.85	.62	SS	DRK GRY FGR		0	
20	FC 381	C	502.85	503.48	.63	CO			0	
21	FC 381	C	503.48	504.00	.52	SH	CRB DRK BRN MED		0	HRD
22	FC 381	C	504.00	505.58	1.58	SH	DRK GRY COL		0	
23	FC 381	C	505.58	505.64	.06	SH	CRB COS PYT		0	
24	FC 381	C	505.64	505.69	.05	SH	CRB BNY		0	
25	FC 381	C	505.69	507.00	1.31	ST	CRB COL	TF	0	
26	FC 381	C	507.00	508.32	1.32	ST	SDY PYS		0	
27	FC 381	C	508.32	508.71	.39	SS	FGR		0	
28	FC 381	C	508.71	509.62	.91	ST	CRB PYS		0	
29	FC 381	C	509.62	512.00	2.38	SS	FGR HRD LIT GRY		0	
30	FC 381	C	512.00	512.54	.54	ST	SDY DRK GRY COL		0	
31	FC 381	C	512.54	515.77	3.23	SS	FGR HRD LIT GRY		0	
32	FC 381	C	515.77	516.00	.23	SH	DRK GRY SDY		0	
33	FC 381	C	516.00	516.55	.55	SS	FGR HRD LIT GRY		0	
34	FC 381	C	516.55	517.76	1.21	ST	SDY DRK GRY COL		0	
35	FC 381	C	517.76	518.43	.67	SH	DRK GRY SDY PYS		0	
36	FC 381	C	518.43	521.80	3.37	CO	PYS CAS FRK	K	0	

SEQ NO.	DRILL HOLE NUMBER	FORMAT	DEPTH FROM	DEPTH TO	THICKNESS	LITHOLOGY CODE	CHARACTERISTICS	SEAM CODE	CORR.	COMMENTS
37	FC 381	C	521.80	522.28	.48	SH	DRK GRY PYT		0	
38	FC 381	C	522.28	522.43	.15	SH	CRB BLK FIS		0	
39	FC 381	C	522.43	522.52	.09	CO			0	
40	FC 381	C	522.52	523.47	.95	SH	GRY CRB SDY		0	
41	FC 381	C	523.47	523.89	.42	SS	FGR LIT GRY		0	
42	FC 381	C	523.89	525.01	1.12	ST	DRK GRY HRD SDY		0	
43	FC 381	C	525.01	527.33	2.32	SH	GRY MED HRD SDY		0	
44	FC 381	C	527.33	530.00	2.67	SS	LIT GRY HRD FGR		0	
45	FC 381	C	530.00	531.10	1.10	ST	DRK GRY HRD SDY		0	
46	FC 381	C	531.10	540.00	8.90	SS	LIT GRY PYS MGR		0	
47	FC 381	C	540.00	540.32	.32	SH	DRK GRY MED HRD		0	
48	FC 381	C	540.32	543.05	2.73	SS	LIT GRY MGR		0	
49	FC 381	C	543.05	543.55	.50	SH	DRK GRY BLK SDY		0	
50	FC 381	C	543.55	545.25	1.70	SS	LIT GRY MGR		0	
51	FC 381	C	545.25	545.83	.58	ST	DRK BRN SDY COI		0	PYT HRD
52	FC 381	C	545.83	547.26	1.43	SH	DRK GRN HRD CAS		0	COI SLK
53	FC 381	C	547.26	549.34	2.08	ST	SDY LIT GRY HRD		0	PYS
54	FC 381	C	549.34	553.54	4.20	SH	DRK GRY MED HRD		0	SDY PYT
55	FC 381	C	553.54	563.90	10.36	SS	GRY HRD MGR		0	
56	FC 381	C	563.90	564.30	.40	ST	DRK GRY HRD SDY		0	PYS
57	FC 381	C	564.30	564.89	.59	SS	GRY HRD MGR		0	
58	FC 381	C	564.89	566.25	1.36	BO	COL PYS		0	
59	FC 381	C	566.25	566.83	.58	SH	CRB BRN COI MED		0	HRD
60	FC 381	C	566.83	567.90	1.07	BO	COL	J	0	
61	FC 381	C	567.90	569.10	1.20	CO	BNY DUL	J	0	
62	FC 381	C	569.10	570.00	.90	SS	GRY HRD MGR CRB		0	
63	FC 381	C	570.00	575.30	5.30	CO	HRD PYS CAS FRK	UI	0	
64	FC 381	C	575.30	575.94	.64	SH	BLK HRD COI		0	
65	FC 381	C	575.94	581.68	5.74	CO	HRD	LI	1	
66	FC 381	C	581.68	584.71	3.03	SS	GRY HRD FGR CRB		0	COI
67	FC 381	C	584.71	591.10	6.39	CO	HRD	LI	5	
68	FC 381	C	591.10	592.00	.90	ST	GRY SFT FRK		0	
69	FC 381	C	592.00	600.00	8.00	ND			0	LOST
70	FC 381	C	600.00	602.50	2.50	SH	DRK GRY MED HRD		0	
71	FC 381	C	602.50	603.40	.90	ND			0	LOST
72	FC 381	C	603.40	604.10	.70	ST	BRN GRY CAS FRK		0	
73	FC 381	C	604.10	608.00	3.90	SH	HRD DRK GRY BH		0	SLY

			SEAM CODE	SAMP NO	SAMPLE DEPTH FROM	SAMPLE DEPTH TO	ANALYSIS CODE	PROXIMATE ANALYSIS %MOIS	%VOL	%CARB	%ASH	%SUL	BTU	EQUIL. MOIST	F P
1	FC 381	D	J	1	567.30	567.90	2	.0	.0	.0	.0	.00	0	.00	
2	FC 381	D	J	2	567.90	569.10	2	.0	.0	.0	.0	.00	0	.00	
3	FC 381	D	J	3	570.00	572.00	2	.0	.0	.0	.0	.00	0	.00	
4	FC 381	D	J	4	572.00	574.00	2	.0	.0	.0	.0	.00	0	.00	
5	FC 381	D	J	5	574.00	575.30	2	.0	.0	.0	.0	.00	0	.00	
6	FC 381	D	J	6	575.30	575.60	2	.0	.0	.0	.0	.00	0	.00	
7	FC 381	D	J	7	575.60	757.94	2	.0	.0	.0	.0	.00	0	.00	
8	FC 381	D	J	8	575.94	578.00	2	.0	.0	.0	.0	.00	0	.00	
9	FC 381	D	J	9	578.00	580.00	2	.0	.0	.0	.0	.00	0	.00	

10	FC 381	D	J	0	580.00	581.68	2	.0	.0	.0	.0	.00	0	.00
11	FC 381	D	I	A	584.70	587.00	2	.0	.0	.0	.0	.00	0	.00
12	FC 381	D	I	B	587.00	589.00	2	.0	.0	.0	.0	.00	0	.00
13	FC 381	D	I	C	589.00	590.00	2	.0	.0	.0	.0	.00	0	.00

F L O A T S I N K D A T A

			SEAM CODE	SAMP NO	SP GR	TYPE CODE	% WT.	% VOL	% ASH	% SUL	BTU	SCREEN SIZE
1	FC 381	G	J	1	000999	DF	0000	.00	16.11	1.53	11821	2000
2	FC 381	G	J	2	000160	DF	8190	.00	6.74	1.25	13362	2000
3	FC 381	G	J	2	160999	DS	1810	.00	54.69	1.67	5605	2000
4	FC 381	G	J	2	000999	DF	0000	.00	15.42	1.33	11958	2000
5	FC 381	G	J	3	000160	DF	8730	.00	9.05	1.19	13037	2000
6	FC 381	G	J	3	160999	DS	1270	.00	54.69	1.67	5605	2000
7	FC 381	G	J	3	000999	DF	0000	.00	14.85	1.25	12093	2000
8	FC 381	G	J	4	000160	DF	9500	.00	7.56	.88	13365	2000
9	FC 381	G	J	4	160999	DS	0500	.00	38.22	2.85	7381	2000
10	FC 381	G	J	4	000999	DF	0000	.00	9.09	.98	13066	2000
11	FC 381	G	J	5	000160	DF	5090	.00	14.11	.72	12335	2000
12	FC 381	G	J	5	160999	DS	4910	.00	43.83	.39	7164	2000
13	FC 381	G	J	5	000999	DF	0000	.00	28.70	.56	9796	2000
14	FC 381	G	J	6	000999	DF	0000	.00	21.12	.51	10913	2000
15	FC 381	G	J	7	000999	DF	0000	.00	10.06	.58	12918	2000
16	FC 381	G	J	8	000160	DF	9430	.00	6.24	.45	13469	0000
17	FC 381	G	J	8	160999	DS	0570	.00	46.67	.38	6054	2000
18	FC 381	G	J	8	000999	DF	0000	.00	8.54	.45	13046	2000
19	FC 381	G	J	9	000160	DF	9260	.00	5.94	.48	13677	2000
20	FC 381	G	J	9	160999	DS	0740	.00	53.75	.27	4485	2000
21	FC 381	G	J	9	000999	DF	0000	.00	9.48	.46	12997	2000
22	FC 381	G	J	0	000160	DF	8960	.00	7.96	1.13	13312	2000
23	FC 381	G	J	0	160999	DS	1040	.00	46.12	.71	6771	2000
24	FC 381	G	J	0	000999	DF	0000	.00	11.93	1.09	12632	2000
25	FC 381	G	I	A	000160	DF	8520	.00	7.59	.89	13479	2000
26	FC 381	G	I	A	160999	DS	1480	.00	55.65	.68	4729	2000
27	FC 381	G	I	A	000999	DF	0000	.00	14.70	.86	12184	2000
28	FC 381	G	I	B	000160	DF	9670	.00	7.69	.50	13414	2000
29	FC 381	G	I	B	160999	DS	0330	.00	27.16	.51	8391	2000
30	FC 381	G	I	B	000999	DF	0000	.00	8.33	.50	13248	2000
31	FC 381	G	I	C	000160	DF	9560	.00	3.43	.49	13976	2000
32	FC 381	G	I	C	160999	DS	0440	.00	38.56	.34	6076	2000
33	FC 381	G	I	C	000999	DF	0000	.00	4.98	.48	13628	2000