12-CAUGE TEST Well (Correspondences)

LAT: 26° 36' 302° N

T455; R34E; S4 Long: 80° 66' 58.4° E

12-TW

# PACKER TEST # 1 2072' to 2124' interval Top Packer Set w/ 52' of 2-1-94 Drop piper below top Packer.

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PARKER TEST # 3. 1268 to 1284; 18' interval
    2-7-94
AIKA = 90.72 mg/L
    CL = 490.73 mg/c
    and = 2240 umhos/cm
      Sioz = 7.866 mg/L
      504 = 365.89 mg/L
      TDS = 1370 myla
    Ca = 490.73 mg/c
           = 15.85 mg/L
              71.10 mg/c
              307 mg/L
     Tursday 2-8-94
     Packer Test # 4 /652.0 to 1704.0; 50 interval
(Calos) Alka
            = 91.41 mg/L
    CL
           = 881.62 mg/L
    ('ond
               3400 um has I cam
    Sioz
              10.591 mg/c
    504
              439.435 mg/L
            = 2160 mg/L
    TDS.
               101 myle
      Ca
              23.6 mg/c
              103.9
535 mg/L
             535 malc
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# PACKER TEST #5 1442' to 1494' 52' PACKER INTERVAL. 2-9-94 (Wednesday)

Alka = 90.12

CL = 444.725

Cand = 2230

SiO2 = 10.459

Soy = 321.62

TDS = 1370

Ca = 77.5

K = 11.8

mg = 70.5

Na = 257

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Tuesday 2-1-94
                                                                          10, 738.5 mg/ Lab
               Packer TEST #1: set 2069 bls. : Chloride concentration 10,420 mg/L Kit
                                      Pressure Gauge reading = 3.50 x 2.31 = 8.085 of head
                                                       Above Measuring Point.
                4.83' $ TMP KB = +7.5'
                                     Land surface 2 15.0 NOVA.
                   15.0 + 7.5 + 4.83 + 8.01
                                              = 35.34 Fresh water Head
                                              = 25.86 equal vant salt water Head
61.20' Salt water Head.
                            2069 X 0.0125
               PIC-TEST Readings:
               Transduces set 80.0 below M.P.
                     Last Transduces head of fre-Test = 14.33 x 5.0 = 71.65
                            Total Drawdown - 8.35 bmp + 8.01 Above mp.
                                            = 16.36 of D'd. @ pump, etc of 75.0 gpm.
                             Specific Capocity = Q/S = 75 qpm/16.36 Did
 Recovery baka:
12.49' of Heads
                                               = 4.58 gam | ft of 16
 Frictim Loss
6.375 per 100 o'Initial LH reading = 16.707 X5 = 83.54 of water Adda 3 drill stem
                                                          volome of water were evacatual
 20.5x 0.375= 7.5
                                                          Above the Transducer . High range
 12.49 - 7.5 = 5.00
                4.54 5 -- CIII W. P - 27.04 NEV B
Q15=75gpm/5.0 D'd
                                                       15.0 + 7.5 + 4.54 + 3.54 = 30.58
                                  ___ Land surface.
                                                   3058 Fresh water head
                                            26.25 43.375 Brackish who had
                                          7 30.88 56.83 Salt waln Head,
                          -52,96 NGVB
               Initial LH reading measured from the m.p(Peacock) = 0.625x5 = 3.125
              using 30 psi Transdoca. 15.0+7.5+4.54+3.125 = 30.17"
               I wither the reading measured on Hermit from the High range transdom was 85.03
                  15.0+7.5+4.54+5.03 = 32.07 MCVD 558.32 salf water head
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Friday 2-4-94

PACKER TEST #2 Trst interval = 1890 to 1910'

Initial reading prior to drill stem evacuation:

Initial LH reading using the sopsi Transducen was

5.755 \* 5 = 28.775 Above m.p.

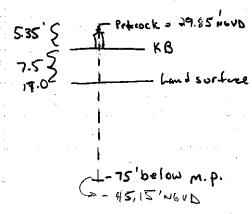
4.17 \$ \_\_\_\_\_\_ KB

7.5 \$ \_\_\_\_\_\_ Lund surface = 15.0'

15.0 + 7.5 + 4.17 + 28.78 = 55.45 NOVD

Evacuation of Drill stem consisted of pumping Approx 3650 gallons.

Transducer was set 75' below mp.



Intial LH reading from the 50 psi transducer. measured from the petcock 19.290 = 76.45 = 419.3' NOVE was 19.217 \* 5 = 96.085

Potentiometric Head. (selfy under Head) 15.0 + 7.5 + 5.35 + 21.1 = 48.95 NGUD.

pomp rate = 35 gpm

Dinudown Dule:

83.66 of Did @ End of Drawdown Test

pump rate = 35 apm

Friction Loss = 0.09 per 100'

0.09 x 20 = 1.8'

(onecled b'd= 83.66 - 1.8' = 81.86'

CODISCTED Q | 5 = 35 90m | 81.86 D'd

84.32 feet of Recovery + (-47.15) NCUB 39.17 ft (NEOD)

= 0.03gpm/DZ

```
Tuestay 2-8-94
Packer TEST # 4
                Test interval 1652. to 1702 - 50 interval.
                Chloride concentration = 882 mg/L.
                    53.81 NEVE . PH.
 27.31
                      In. Find LH reading prior to pomp-out of drill sten
  4.0'}
                      was . 5.462 * 5 = 27.31
                                       53.81 PGUD.
                15.0 +7.5 +4.0 +27.31 =
Prior to Drowdown Test
                     52.0 herb. PH.
                                    Initial LH reading from sopsi transvolu
                                    sel 70' bmp = 189 x5 = 94.5
                                         94.5-70 = 24.5 Above MP.
pump rate = 35 gpm
Final Lit reading prian to pulling the ropsi transoom. Q the end of
the Perovey TEST = 19.234 x 5. 96.17
                                  96.17-70:0= 26.17
     5.0 5 1 mp KB
          Landsorfice 15.0 MEUD
Drawdown Dalas
 60.01 of b'd @ End of Drawdown TesT
                                          (pump rate = 359pm)
  Friction Loss = 0.09 x 16.5= 1.49
       Corrected D'd = 60.01 - 1-49 = 58.51 D'd
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Q/s= 35gpm | 5851'Dd

Wednesday 2-9-94 PACKER TEST #5 TEST INTERVAL = 1554 (1442-1492) intel LH reading prior to evacuating drill stem = 5.03 x5= 25.45 an C- 52.53 NGVD. Land sortere = 15.0 Prior to Drawdown Test 5,925 (TT Recovery Datas 92,51 of Recovered Head pump rate = 30 gpm Frictim Loss: 0.05 x 14.5= 0.73' Corrected D'd = 92.51 - 0.73= 91.78 corrected (|s = 30 gpm | 9).78 b'd

0.35gpm/26.0

RANGE :

: 0

: 0

FILE : ORIGINAL

KB

DF

GL

# ALL WEBB'S **ENTERPRISES** INC.

# OTHER SERVICES:

**CLEWISTON** 

COMPANY : CLEWISTON LOCATION/FIELD : L-1 CANAL COUNTY : PB STATE : FL

: SFWMD

WELL

SECTION

DATE : 12/19/96

LOG BOTTOM : 1794.10 LOG TOP : 1443.90 CASING DIAMETER: 12

DEPTH DRILLER : 1800

CASING TYPE : BLK ST CASING THICKNESS: .375 : 7.825 BIT SIZE

MAGNETIC DECL. : 0 MATRIX DENSITY : **NEUTRON MATRIX**:

: GEOPHYSICAL

: 12 TEMP. SET

LOG TYPE

COMMENTS

PERMANENT DATUM : GL

**TOWNSHIP** 

**VIDEO** 

**GEO LOG** 

**FLOW** 

LOG MEASURED FROM: TOC DRL MEASURED FROM: GL

LOGGING UNIT : 1

FIELD OFFICE : FT MYERS RECORDED BY : TINSLEY

RM TEMPERATURE MATRIX DELTA T

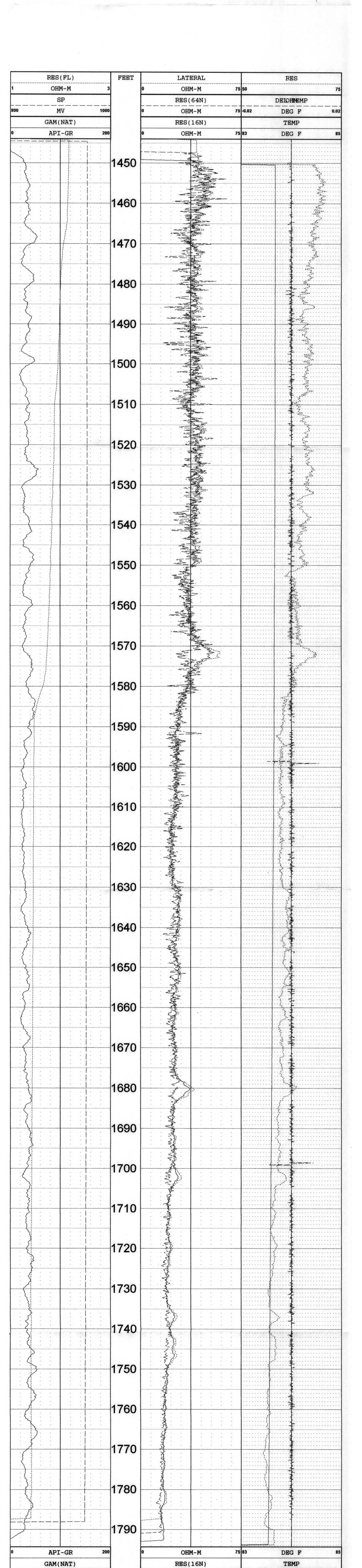
**BOREHOLE FLUID** 

THRESH: 2500

TYPE : 9041A

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS

: MUD



800

1000

FEET

MV

SP

OHM-M

RES(FL)

OHM-M

RES (64N)

OHM-M

LATERAL

75 -0.02

75 50

DEG F

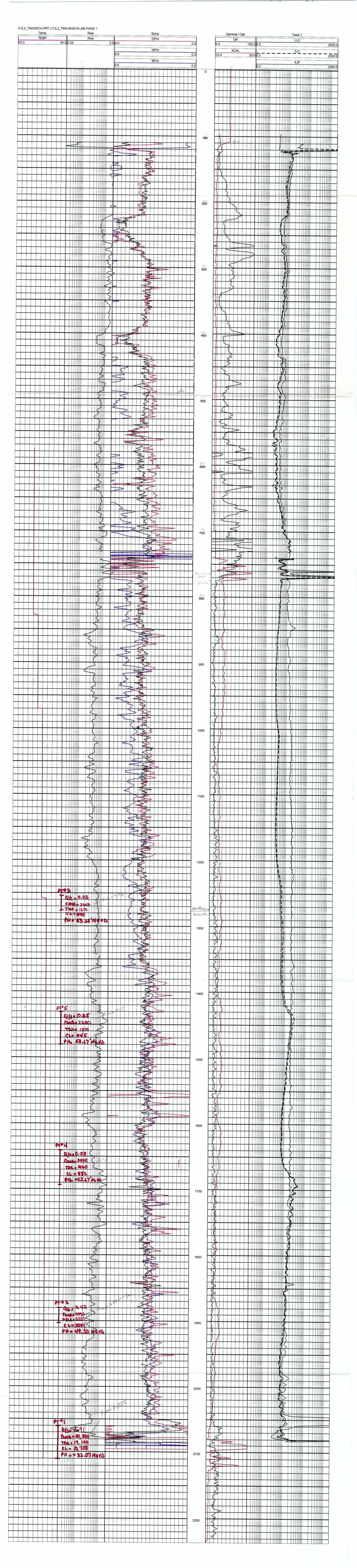
DEL TEMP

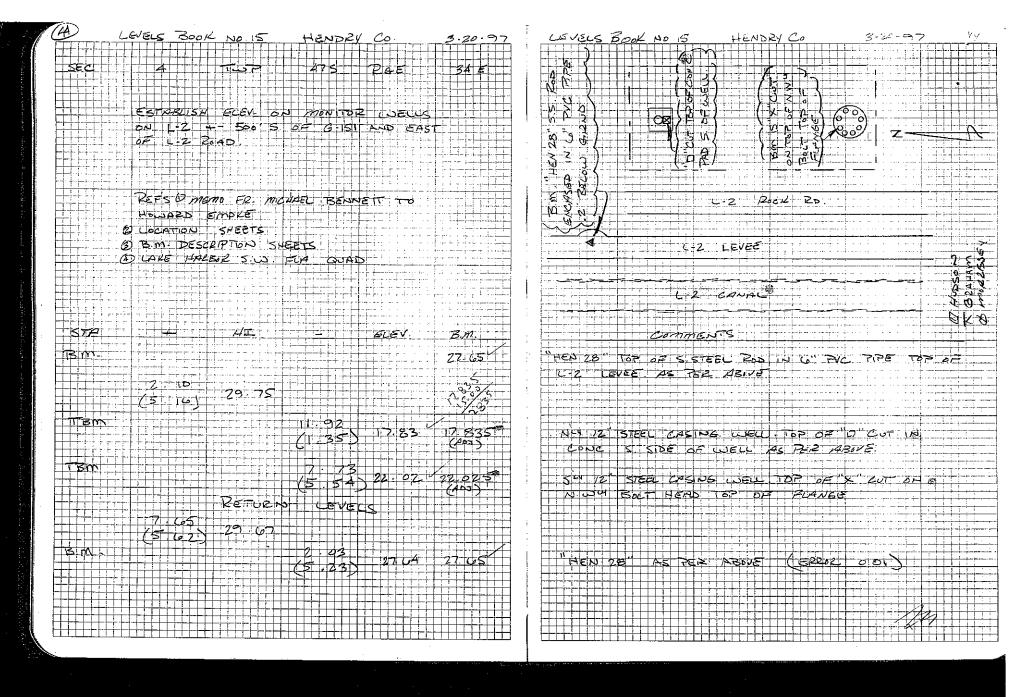
OHM

RES

0.02

75





DEPTH	DESCRIPTION - ROCK TYPE, COLOR, HARDNESS, OTHER
0'-9'	well inducated brown to ten colored sundy timestone w/ minor
	AMOUNT of shell fragments. Also continue minor Amount of moderately
•	inducated Lt-gray fire grained smot the fragments some calcile replaced.
	shall frequents (slow drilling w/ significent bit chatter)
9'- 18'	poorly indurated - soft Lt to med gray to slightly ohue gray-green sondy slay
	we frequents of high known soundy himes time frequents in humised to Loud About
	this interval. (fast drilling); A significant amountal sund wheat in the drilling as
18-25	Light-time to Buff colored poorly indorated (consolidated) shell heath / Lines tore
	the majority of the sample contains mollock shell fragments w/ whole
	(Chione) mollosk shells, Typical of Tamioni Formation.
25 - 32'	LI gray to grang colored Linestone w/ minor Honounts of frosted
	quanta grains Lange Amounts of good topolis mollousk's hell frequents
	quanta grains, Lange Amounts of gastropolis mollousks held fragants  when whole mollosk (chime) and gastropod ( ) shells. Drilling
Tripped	UT of bore-hole @ 1325
Tripped-	to borehale @ 1340 2nd string
32 '- 38'	Lt gruy moderately indurated somety Linestone w/ significent 40%
	of medium to course gramed frosted quartz grame contins tragiand
	al. spany culcite and shall tragments; hew whale mollusk shall tragments.
38'-43'	It gray moderately to well indurated sowdy Linestone, containing radiate
. ,	replaced stell fragments; medium to coarse gramed frosted quarte grain
	and whole mollosk (chime ) shells i fragrants.
4·3 - হম্ব <sup>1</sup>	Lt-gray to gray colored poorly to moderately indurated Linestone (foot Dr. 11)
	w/ strings of well inducated gray Linestone, the majority of the interval
	Contains Linestone and mollusk shell fragment w/ minor Amont of media
	to coarse-grained frosted i Hernstrand quarte grains, we ident fruther shell
	tragrants: some oute, le tragments.
55'-60'	Lt-gray moderaly to well indurated Linestone w/ MINON Amont of
	shell frequent and decreased Ament 196 trasted quarter grains: sme
	Culcite grainer and chindenical small director valente trans (worm-tubes ?) no
	identificable stells on shell frequents
Tripped	alt of pore hale @ 1425
Tripped	bulk in to bore hole @ 1445 3rd string.

### PROJECT LINE Florida WELL NO. LZ-TW DATE 12-15-93

LO'- 155' Lt-gray modern to comes sensed; the personant force of Licentine and well committed sound grains (lines sometime) fragment of cooler te  best destinationable sound grains (lines sometime). Also contain tenne as fragment  sounder time time (responded opinion graving many); also contains tenne as fragment  55-70' Dearly to maderability inducated, highly-gray tracture containing some  equal time time and transports of recognitive and tracture and contains and contains a grand frad?)  15-80 (Connet to grand frad?)  70-75' SAME AS ABOUT  15-80 poorly to moderabely indurated (consolidated) medicine as stell fragment  (this political warm tokes (?))  15-80 poorly to moderabely indurated (consolidated) medicine as Grance grained  Quanta Samd wil the dark gray limentains and stell fragments incepting  all the fragments are mellists stells.  80-85' Poorly to moderabely indurated (consolidated) medicine to coarse grained  quanta Samd wil stringers of well indurated sandstone and the gray  Limentary of myior Shell fragments  85-90 poorly to moderabely indurated fragments  grained out of hole Q (SUS ha. 4th String  Tripped out of hole Q (SUS ha. 4th String  Tripped out of hole Q (SUS ha. 4th String  1-19-97' well indurated, traph gray sounds fragments on a sounds have and of the politic fragments  90-97' well indurated, traph gray sounds fragments on a sounds have all fragments from the politic fragments  105-110 poorly to moderabely indurated high trapes from a sound have politic fragments indured to have a grain of the politic fragments and should indured to have a grain sound to the politic fragment of politic fragments indured to have a grain of should to the politic fragment of politic fragments indured a high gray sound times from 108 to 110'  105-110 poorly to moderabely indured to have reposed duelle, more amount of him politic fragment fragments and should duelled in an amount of him politic fragment fragments and should duelled in an amount of him politic fragments and politic fragments and times and pol	. DEPTH	DESCRIPTION - ROCK TYPE, COLOR, HARDNESS, OTHER .
and well committed search grains (west sombite) fragment of color te boots and in the state of some motivate stell fragments ten brown in search time there (regressed or string previous search to the brown in search to the formation of consisting industrial or the time to the time search to the formation of consisting industrial to the time the continuity same equal size times the transport to the congetiment in shell fragment (town the time and street) and the time that we can tokes (?)  70-75  Same As Above (consolidated) medicion to conse grained (the present search to the present of the present search to the street of the present search to the street of the present of the present search to the street of the present of the prese		moderally to well indicated
bootstand in the stells but some necloses stell frequents to brown .  Somety Lines have (requested scripting provincement); also contains temper to frequent  65-70' Durry to moderately inducated highly group Live the containing some  contain to course grained quests prome This engle Contains stelled traggered  (course to grand first)  70-75 SAME to super tobas (?))  70-75 SAME to About  75-80 Passely to moderately industred (consolidated) medicion to stell frequent  (tris political were tobas (?))  70-85' Passely to moderately industred (consolidated) medicion to course grained  grants sand well the dant gray timestree and stell frequents incepting  al still frequents are mellist stells.  80-85' Passely to moderately industred (consolidated) medicion to course grained  quests sand well stringers of well industred sandstone and it gray  Live chart of prince shall frequents  85-90 passely to moderately industred (consolidated) as dim to course grained  quests sand of string of same well consolidated and to gray  Tripped out of hote Q 1845 to 4th String  Tripped out of hote Q 1845 to 4th String  Tripped out of hote Q 1845 to 4th String  Tripped out of hote Q 1845 to 4th String  Tripped out of hote Q 1845 to 4th String  Tripped out of hote Q 1845 to 4th String  Tripped out of hote Q 1845 to 4th String  Tripped out of hote Q 1845 to 4th String  Tripped out of hote Q 1845 to 4th String  Tripped out of hote Q 1845 to 4th String  Tripped out of hote Q 1845 to 4th String  Tripped out of hote Q 1845 to 4th String  Tripped out of hote Q 1845 to 4th String  Tripped out of hote Q 1845 to 4th String  Tripped out of hote Q 1845 to 4th String  Tripped out of hote Q 1845 to 4th String  Tripped out of hote Q 1845 to 4th String  Tripped out of hote Q 1854 to 4th String  Tripped out of hote Q 1845 to 4th String  Tripped out of hote Q 1845 to 4th String  Tripped out of hote Q 1845 to 4th String  Tripped out of hote Q 1845 to 4th String  Tripped out of hote Q 1850 to 4th String  Tripped out of hote Q 1850 to 4th String  Tripped out	<u> </u>	
Sendy Lines time frog reached oxisting privilenement). Also contents before 25 fragments  65-70' pourly to moderabily individed backberry broad for thing some median by considering and content of course is grandfathed.  (course is grandfathed)  (course to grandfathed)  70-75' SAME As Aboute  75-80 poorly to moderably individed (consolidated) median to Course granded  Quants Sand Will to deat grand broaders and shell frequents invinity  uf shell frequents are mollish shells.  80-85' poorly to moderably individed (consolidated) median to course granded  quants Sand will stringers of (consolidated) median to course granded  quants Sand will stringers of (consolidated) median to course grained  quants Sand will stringers of (consolidated) median to course grained  quants Sand will stringers will individed and back and sandshow and  timedface of moderably individed will forgued for consolidated sandshow and  Tripped out to hake Q 1600 ha with string  Tripped out to hake Q 1600 ha will proposely for ordina difficulting rake products to replayed  quants in hake Q 1600 ha much promp guit Q 1510 Q 94' resourced drilling  at 1615  90-97' well individed by individed, hight-gray sandy breashow will about and  shell individual individed, hight-gray sandy breashow will about the matrix  105-110 poorly to moderably individed, hight-gray sandy breashow will about the first grand phasephate in the matrix  105-110 poorly to moderably individed by high proposed from 100 to 110'  poorly to moderably individed to be the proposed from 100 to 110'  poorly to moderably individed to be the proposed from 100 to 110'  poorly to moderably individed to be the proposed from a man of the proposed from 100 to 110'  poorly to moderably individed to 150 Tob 121'; comple these	•	
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reduin by coarse-grained geneta grants. This image combine analog more equal size to grant tragments of no large timestime as stell frequent (true intericted was in taking?))  70-75  SAME AS Aboute  75-80  POORly to moderabely indurabed (consolidated) medican to coarse grained a suff frequents are mellist stells.  80-85'  Poorly to moderabely indurabed (consolidated) medican to coarse grained a suff frequents are mellist stells.  80-85'  Poorly to moderabely indurabed (consolidated) medican to coarse grained quests sand of stringers of well independed sandstime and it gray limedated of moderabely indurabed (consolidated) and time to coarse grained greats and of stringers of well independed sandstime and it gray limedated and stringers of mover amounts of shell frequents  Tripped and hole Q 1845 ha, 4th string  Tripped and hole Q 1600 ha, much pump guit Q 1110 Q 74' resound drilling at 1615  90-97' well indurabed light gray sandy lines tone on a sandstime of choosing coment, no identificable stell frequent (medium drilling rate) probably indurabed, light-gray sandy lines tone on the probability of poorly to moderately indurabed, light-gray sandy lines that property to moderately indurabed, light-gray sandy lines that plantably shall informed light indurabed which a light gray sandy lines that any Abouth the parties and shade of lines from some stringer from 108 to 110'  105-110  passey to Additionabely indurabe light replaced dielle, more amount of line-grained procephate in the matrix of procephate indurable could replace dielle, more amount of line-grained procephate in the passed to procephate indurable shall lines and procephate in the passed to procephate indurable shall replace dielle, more amount of line-grained procephate indurable shall replace dielle, more amount of line-grained procephate in some or a shall indurable shall replace dielle, more amount of line-grained procephate shall replace a shall replace to 100 100 100 100 100 100 100 100 100 10		sendy times time tray mental oxiding environments), Also contains large his tray more
(ten pricipal worm tobage?)  70-75  SAME AS ABOLE  75-80  POOR by to moderably indurabed (consolidated) medican be coarse grained  Quento Some by It be deart group Lineatine and shell frequents insujuity  of shift frequents are mellisk shells.  80-85'  Poor by to moderably indurabed (consolidated) medican to coarse grained  quento Sand of stringens of well independed sandstone and it group  Lineating of prior shell frequents  85-90  poor by to moderably sadve hel (consolidated) he dian to coarse grained  quento Sand of string of south well forsolidated sandstone and  himstrastrastringers; minor amounts of shell frequents  Tripped out of hote Q (545 ha 4th String  Tripped out of hote Q (545 ha 4th String  Tripped into hole Q 1600 ha; mud pump quit Q 1610 Q 74' resoured drilling  at 1615  90-97'  well indonated, light group sandy himstone on a sondstone of endate  Song calci to repund  Cement juo idealifiable shell frequent (medican drilling rate) mollusted time.  97-105  poorly to moderated indurated, hight-group territy in rate may phonedate  in the matrix  105-110  poorly to moderately indurated, hight gray sondy himstone of presponds  in the matrix  105-110 poorly to moderately indurated hight represent stringer from 108 to 110'  110-115  Passess to Abedescately indurated hight represent stringer from 108 to 110'  110-115  Passess to Abedescately indurated hight represent stringer from 108 to 110'  110-115  Sone of Presponds sond grains  115-120  Sone of Abedescately indurated colling Q 150 TD 2 121'; Gample taken	65-70	
(ten pricipal worm tobage?)  70-75  SAME AS ABOLE  75-80  POOR by to moderably indurabed (consolidated) medican be coarse grained  Quento Some by It be deart group Lineatine and shell frequents insujuity  of shift frequents are mellisk shells.  80-85'  Poor by to moderably indurabed (consolidated) medican to coarse grained  quento Sand of stringens of well independed sandstone and it group  Lineating of prior shell frequents  85-90  poor by to moderably sadve hel (consolidated) he dian to coarse grained  quento Sand of string of south well forsolidated sandstone and  himstrastrastringers; minor amounts of shell frequents  Tripped out of hote Q (545 ha 4th String  Tripped out of hote Q (545 ha 4th String  Tripped into hole Q 1600 ha; mud pump quit Q 1610 Q 74' resoured drilling  at 1615  90-97'  well indonated, light group sandy himstone on a sondstone of endate  Song calci to repund  Cement juo idealifiable shell frequent (medican drilling rate) mollusted time.  97-105  poorly to moderated indurated, hight-group territy in rate may phonedate  in the matrix  105-110  poorly to moderately indurated, hight gray sondy himstone of presponds  in the matrix  105-110 poorly to moderately indurated hight represent stringer from 108 to 110'  110-115  Passess to Abedescately indurated hight represent stringer from 108 to 110'  110-115  Passess to Abedescately indurated hight represent stringer from 108 to 110'  110-115  Sone of Presponds sond grains  115-120  Sone of Abedescately indurated colling Q 150 TD 2 121'; Gample taken		(conse to gravel, sized)
70-75  SAME AS About  75-80  POORly to moderalely indurated (consolduled) medicion to coarse grained  Plush Sound will to be don't gray Limiter and shell frequents i purposit  of shell frequents are mellisk shells.  80-85'  Poorly to moderalely indurated (consolidated) medicin to coarse grained  quents sand wil stringers of well indonated sandstine and lit gray  Limiteral wil minor shell frequents  85-90  Poorly to moderalely industed (consolidated) as dien to coarse grained  quents sand wil string of samely vall forgonate  Tripped out of hote Q 1645 ha 4th string  Tripped out of hote Q 1645 ha 4th string  Tripped into hale Q 1600 ha proved porme quit Q 1610 Q 74' resourced drilling  at 1615  90-97'  well industed triplet gray sandy transfers on a sandstine wil soldiste  cament, no idealisticable shell frequent (medicin drilling rate) mollusticable frequent  cament, no idealisticable shell frequent (medicin drilling rate) mollusticable frequent  shell temperate and shoulds of limester, million adams of five-grained phosphishe  in the matrix  105-110  poorly to moderately industed, hight gray sandy timesters of prosphishe in  the matrix - well industed triplet gray timesters stringer from 108 to 110'  110-115  Passey the passanche sand grains  115-120  same no Aboute Stopped drilling Q 150 TD= 121'; cample taken		
75-80 poorly to moderably industrial (consolabled) nedison to coarse grained  Greenth Semal W I the deart gray Linestern and stell frequents inceptify  of stell frequents are mellist stells.  80-85' poorly to moderably industrial (consolabled) medison to coarse gransed  quents sand w/ stringers of well indoneted sandstone and lit gray  Linestern w/ mison shell frequents  85-90 poorly to moderably industrial (consolabled) as dian to coarse grained  quents sand w/ stringer of sameter well consolabled sandstone and  thingstonester stringers in word promocols of stell frequents  Tripped out of hote Q 1845ha. 4th string  Tripped out of hote Q 1845ha. 4th string  Tripped into habe Q 1600 ha involute the string of a sandstone of every affected  at 1615  90-97' well industriable stell frequent (medion difficulting make) modificable may  comention identificable stell frequent (medion difficulting make) modificable may  grand frequents and should frequent (mission advant of five-grand phosphate in  the matrix  105-110 poorly to moderably industrial high gray sandy birestone of prosphate in  the matrix - well industrial frequents of five-grand phosphate in  the matrix - well industrial countries of five-grand phosphate in  the matrix - well industrial countries of the grand phosphate in  the matrix - well industrial countries of the grand birestone of the graine of prosphate seminary of the grand of prosphate in deal is likely the prosphate seminary of the grand of prosphate in deal is likely the prosphate seminary of the grand of prosphate in deal is likely the prosphate seminary of the grand of the prosphate in deal is likely the prosphate seminary of the grand of the prosphate seminary of the grand of the prosphate in the grand of the prosphate seminary of the prosphate is the grand of the prosphate seminary of the prosphate is the grand of the prosphate seminary of the prosphate is the prosphate in the prosphate of the prosphate seminary of the prosphate in the prosphate is the prosphate of the prosphate is the prosph	70-75	· ·
quents sound will the dent group Lineators and shell frequents incipating of shell frequents are mellists shells.  80-85' Poorly to moderaby inducted (consolidated) medicin to course grained quents sand of stringers of well inducted sandstone and the gray Lineators of poorly to moderaby inducted (consolidated) as dian to course grained quents sond will string of sounds well consolidated sandstone and himsestrastructures in more parables of shell frequents  Tripped out af hote Q 1845 ha. 4th String  Tripped out hole Q 1600 ha; mud pume quit Q 1410 Q 94' resumed drilling at 1615  90-97' well inducated, tight gray sondy three tone on a sonistance of solicite coment, no identificable shell frequent (medicin drilling rate mollicitedabling)  97-105 poorly to moderately inducted, tight-gray sondy three times and phosphale in the matrix  105-110 poorly to moderately inducted, tight-gray sondy times true of phosphale in the matrix will induce the tight gray sondy times true of phosphale internating - well induced tight gray sondy times from 108 to 110'  105-110 poorly to moderately induced tight gray sondy times from 108 to 110'  105-110 poorly to moderately induced tight gray sondy times from 108 to 110'  105-110 poorly to moderately induced tight gray sondy times from 108 to 110'  110-115 pagasey to phosphale induced delight gray sond times and whomat dell timestone frequent wisne quick replaced dells, more a mont of time-grained prospanches sond grains  115-120 sone as about Stopped drilling @ 1750 TD = 121'; some 10 takent		
go-85' Poorly to moderaty inducted (consolidated) action to coarse granged  quents send of stringers of well inducted sends on and It gray  Line glove of mison shell frequents  85-90 poorly to moderaty inducted (consolidated) are dien to coarse grained  quents send of string of sends well forsolidated sands from and  himselves stringers in more property of the frequents  Tripped out of hote Q 1545 ha. 4th String  Tripped out of hotel Q 1545 ha. 4th String  Tripped out of hotel Q 1545 ha. 4th String  Tripped out of hotel Q 1550 ha. 4th String of All All String out of Hotel All String  Tripped out of hotel Q 1550 ha. 4th String  Tripped out of hotel Q 1550 ha. 4th String  Tripped out of hotel Q 1550 ha. 4th String  Tripped out of hotel Q 1550 ha. 4th String out of hotel All String  Tripped out of hotel Q 1550 ha. 4th String out of hotel All String  Tripped out of hotel Q 1550 ha. 4th String out of hotel Q		
80-85' Poorly to modernely inducted (consolidated) ned in to coarse granged  quests send of stringers of well inducted sandstone and Lt gray  Line stool of stringers of well inducted sandstone and Lt gray  BS-90 poorly to moderally inducted (consolidated) he dim to coarse grained  quests send of stringers minor somewhat well consolidated sandstone and  himstone struggers minor somewhat belief fragments  Tripped out of hote Q 1845 ha. 4th string  Tripped out of hote Q 1845 ha. 4th string  Tripped well inducted, Light gray sondy three tone on a sandstone of excite  song case in replaced  cement; no identifiable still fragment (medium drilling rate) mollusted the fragments and shade of ling to the moderated inducted, Light-gray temps to himstone of phosphate  In the matrix  105-110 poorly to moderately inducted, hight gray sondy timestone of prosphate in  the matrix well inducted hight-gray timestone stringer from 108 to 110'  105-115 passey to Abadequily inducted - Light pray sond himstone and abounds  chell Lingstone fragments wisher quick replaced delle, minor amount of  time-grained prospante sond grains  115-120 sone he where: Stopped drilling @ 1750 TD= 121'; comple taken		•
quests sand by stringers of well independed sandstme and lt gray  Line start wy mison shell frequents  85-90 peorly to moderally industr's (consolidated) he dien to coarse grained  quests smd wy string of samet well consolidated sandstone and  himstord stringers, mison amounts of shell frequents  Tripped out of hote Q (545 ha. 4th String  Tripped out of hote Q (545 ha. 4th String  Tripped into hale @ 1600 ha; mud pump quit Q 1610 Q 94' resumed drilling  at 1615  90-97' well indurated light gray sandy himstone on a sandstone w/ entrik  coment, no identifiable shell frequent (medium drilling rade mollusticalet frequent  coment, no identifiable shell frequent (medium drilling rade mollusticalet frequent  Shell frequents and shands of himstoney to must be phosphate  in the matrix  105-110 poorly to moderally industry hight-gray times of five-grand phosphate in  the matrix well industry himstoney from should be from 108 to 110'  110-115 papage to phosphate higher-gray timestone shringer from 108 to 110'  110-115 papage to phosphate sand grains  115-120 some he where Stopped drilling Q 1750 TD= 121'; sample taken	80 - 85 '	,
Exercised wy minor Shell frequents  85-90 poorly to moderally industry (consolidated) as dish to coarse grained quests smd wy string of small well consolidated sandstone and himstone struggers, minor amounts of shell frequents  Tripped out of hote Q 1845 ha. 4th String  Tripped with hole @ 1600 ha: mud pump quit Q 1610 Q 94' resumed drilling at 1615  90-97' well industriable shell frequent (medium drilling rede) mollusticated frequent  cement, no identifiable shell frequent (medium drilling rede) mollusticated frequent  97-105 poorly to moderated indusated light-group strang-timestone wy about the Stell frequents and shoulds of timestone; minor adout of five-ground phosphate in the matrix  105-110 poorly to moderate indusated hight group sound timestone my about in  triviating - well indusated hight group sounds timestone stringer from 108 to 110'  110-115 passes to phodesonally indusated - light group sound timestone whomat  shell thirstone frequents wisher qualities of live-ground himstone whomat  the himstone frequents wisher qualities frequent dealls, minor amount of  fire-grained prosporate sound grains  115-120 some he is boure		quants sand w/ stringers of well indonated sandstone and Lt gray
85-90 poorly to moderally industed (consolidated) red in to coarse grained  quents and w string of sent well consolidated sandstone and  himstone stringers, Minor Amounts of stell frequents  Tripped out of hote Q 1545 ha. 4th string  Tripped out of hote Q 1545 ha. 4th string  Tripped rule hale Q 1600 ha; mud pump quit Q 1610 Q 94' resumed drilling  at 1615  90-97' well indurated, light gray sandy lives tone on a sands line w/ entrile  cement; no identificable stell frequent (medium drilling rate) mollisticabilities,  97-105 poorly to moderately indurated, light-gray tomber of fine-grand phosphate  in the matrix  105-110 poorly to moderately indurated, light-gray sandy livestone as phosphate in  the matrix - well indurated hight-gray livestone stringer from 108 to 110'  110-115 passey to potentiagety indurated - light pay sand hings has all tours to fine-grand phosphate in  shell it instance frequents indurated - light pay sand hings has a hourded  chell it limits me frequent wis me queix replaced shells, minor amount of  fine-grained prosphate sand grains  115-120 some he where; Stopped drilling Q 1750 TD= 121'; Gample taken		
princestral stringers; Minor Amounts of shell fragments  Tripped out of hote Q 1845 ha. 4th String  Tripped out of hote Q 1845 ha. 4th String  Tripped out of hote Q 1845 ha. 4th String  at 1615  90-97' well indurated, Light gray soundy Linestone on a soudstone of cardia spring cate the replicated Coment; no identificable shell fragment (medium drilling rate) mollus (called fragment) poolity to moderately indurated, Light-gray terraly-Linestone of Aboundent  Shell fragments and shoulds of Linestone; minor Adout of fine-grand phosphare  In the matrix  105-110 poorly to moderately indurated, Light-gray timestone of Aboundant  shell chinestone fragments; unious Amounts of fine-grand phosphare in  triendring - well indurate Light-gray Linestone Stringer from 108 to 110'  110-115  Appeter the About indurated - Light pray sound Linestone of Aboundant  shell Linestone fragment wisher quick replaced shells, minor Amount of  fine-grained prosphare sound grains  115-120 Some as About Stopped drilling Q 1750 TD= 121'; Gample takent	85-90	.1
princestral stringers; Minor Amounts of shell fragments  Tripped out of hote Q 1845 ha. 4th String  Tripped out of hote Q 1845 ha. 4th String  Tripped out of hote Q 1845 ha. 4th String  at 1615  90-97' well indurated, Light gray soundy Linestone on a soudstone of cardia spring cate the replicated Coment; no identificable shell fragment (medium drilling rate) mollus (called fragment) poolity to moderately indurated, Light-gray terraly-Linestone of Aboundent  Shell fragments and shoulds of Linestone; minor Adout of fine-grand phosphare  In the matrix  105-110 poorly to moderately indurated, Light-gray timestone of Aboundant  shell chinestone fragments; unious Amounts of fine-grand phosphare in  triendring - well indurate Light-gray Linestone Stringer from 108 to 110'  110-115  Appeter the About indurated - Light pray sound Linestone of Aboundant  shell Linestone fragment wisher quick replaced shells, minor Amount of  fine-grained prosphare sound grains  115-120 Some as About Stopped drilling Q 1750 TD= 121'; Gample takent		greate and w/ string of such well consolidated sandstone and
Tripped out of hote Q 1845 hr. 4th String  Tripped into hale @ 1600 hr. mud pump quit Q 1610 Q 94 resumed drilling.  at 1615  90-97 well indurated Light gray sondy Linestone on a sondstane w/ entrick  Cement; no identificable shell frequent (medium drilling rate) mollustestal frequent  97-105 poorly to moderately indurated, Light-gray territy-Linestone w/ Abundant  Shell frequents and should of homestone; misson Adunt of fine-grand phosphake  in the matrix  105-110 poorly to moderate industed hight gray sondy binestone and Abundant  Shell itinistone frequents; misson products of fine-grand phosphate in  the matrix - well indurated hight-gray Linestone stringer from 108 to 110'  110-115 passes the Addressedy indurated - Light gray sond Linestone wlabords  stell thirstone frequent wlone quick replaced shells, minus amount of  this-graine of prosphate sound grains  115-120 some he whome; Stopped drilling @ 1750 TD= 121'; soundle taken	· · · · · · · · · · · · · · · · · ·	
Tripped 1 to hale @ 1600 ha is mud pump quit @ 1610 @ 94' 100 cmed drilling  at 1615  90-97' well individed, Light gray sondy Lives tone on a sondstane w/ check  Cement, no identificable stell frequent (medium drilling reals) mollustestal frequent  97-105 poorly to moderately indureded, Light-gray temp. Livestape w/ abouted  Shell frequents and shands of homestare; minor adout of five-grand phosphate  in the matrix  105-110 poorly to moderately industed hight gray sondy Livestare m/ aboutent  shell clinestare frequents; minor amounts of five-graned phosphate in  triputing - well indurate Light-gray Livestare stringer from 108 to 110'  110-115 parcely to prosphate wisher quality replaced shells, minor amount of  shell Livestare frequents sand grains  115-120 some as About Stopped drilling @ 1750 TD= 121'; Gample taken	Tripped o	,
at 1615  90-97 well indurated, Light gray sandy Lives tone on a sands time of chick spong ratio to replaced Cement; no identificable shell frequent (medium drilling rate) mollustes to the moderated of indurated, Light-gray territy - Livestone w/ Abundant shell frequents and should all homestone; minor Adunt of fine-grand phosphate in the matrix  105-110 poorly to moderately indurated hight gray sandy binestone of Abundant shell it instance frequents; univer Amounts of fine-graned phosphate in the matrix - well indurate hight-gray binestone stringer from 108 to 110'  110-115 passed to Abade and indurated - light gray sand himselve of the phosphate in dell thirestone frequent w/ some culcik replaced shells, mirror amount of the grained prosphate sand grains  115-120 some as Above; Stopped drilling @ 1750 TD= 121'; Somple taken		
Cament, No identifiable shell fragress (Mcdium drilling rate) Mollus (cold) fragress of poorly to moderately indurated, Light-gray Errity-Linestone w/ Abundant  Shell fragrants and shands of Lonestone; MINON Adunt of fine-grand phasebooks  in the matrix  105-110 poorly to moderaty induratedy Light gray south Linestone of Abundant  shell chinestone fragrants; univer Amounts of fine-graned phosephote in  the matrix - Well indurate Light-gray Linestone Stringer from 108 to 110'  110-115 pagary to Abadequify indurated - Light gray south Linestone and Abundant  chell & Linestone fragrants w/ some culcile replaced shells, minn amount of  the grained prosphate sound grains  115-120 some as Abune? Stopped drilling @ 1750 TD= 121'; Gample taken		,
Cament, No identifiable shell fragress (Mcdium drilling rate) Mollus (cold) fragress of poorly to moderately indurated, Light-gray Errity-Linestone w/ Abundant  Shell fragrants and shands of Lonestone; MINON Adunt of fine-grand phasebooks  in the matrix  105-110 poorly to moderaty induratedy Light gray south Linestone of Abundant  shell chinestone fragrants; univer Amounts of fine-graned phosephote in  the matrix - Well indurate Light-gray Linestone Stringer from 108 to 110'  110-115 pagary to Abadequify indurated - Light gray south Linestone and Abundant  chell & Linestone fragrants w/ some culcile replaced shells, minn amount of  the grained prosphate sound grains  115-120 some as Abune? Stopped drilling @ 1750 TD= 121'; Gample taken	90-97	well indurated Light gray sandy Lines tone on a sondstone w/ enterte
97-105 poorly to moderately indurated, Light-gray territy-Linestone w/ Abundant  Shell tragnowds and shands of homestare: MINON Adunt of fine-grand phosphate in the matrix  105-110 poorly to moderaty indurated hight 'gray soudy Linestone as/ Abundant  Shell 'clinistone frequents: minor Amounts of line-graned phosphate in  the restrict - Well indurate Light-gray Linestone Stringer from 108 to 110'  110-115 passay to Abadogulary indurated - Light gray sound Lingstone af Abundand Stell   Linestone frequent w/ some culcile replaced dells. Minor Amount of  time-grained prosphate sound grains  115-120 some as Abanel: Stopped drilling @ 1750 TD= 126; Gample taken		coment, No identificable shell fragment (medium drilling rate) Mollus (cold frag
Shell fragments and shunds of homestare: MINON Advant of fine-grand phasphake in the matrix  105-110 poor; to moderally industed hight gray sudy Linestone of Abundant  shell interestone fragments: univer Amounts of fine-graned phosphate in  the matrix - well indurate hight-gray hinestone stringer from 108 to 110'  110-115 passey to Abadosably indurated - high fray sound himstone wildowds  chell thirstone fragment wisher culcile replaced shells, minn Amount of  time-grained phosphate sound grains  115-120 some as Above: Stopped drilling @ 1750 TD= 126; Gample taken	97-105	
in the matrix  105-110 poor of to moderally industed hight gray sudy Linestme of Abundant  Shell chirestone frequents: univer Amounts of Sine-graved phosphate in  treputing - Well indurate hight-gray Linestone stringer from 108 to 110'  110-115 passes to Adadogulary indurated - Light gray sand hingstone of abundance of Linestone frequent wisher culcile replaced dells. minus Amount of  fine-grained phosphate sand grains  115-120 some he About		
105-110 poorly to moderally industedy hight gray sudy Linestine of Abundant  shell chinestine frequents: univer property of fine-graved phosphate in  the mutricy - well indurate hight-gray binestine stringer from 108 to 110'  110-115 parcey to patedogularly indurated - high gray sound hingsline all abunda  chell & Linestine frequent wisher culcile replaced shells. minn a mont of  fine-grained phosphate sound grains  115-120 sine he showe: Stopped drilling @ 1750 TD= 126'; Gample taken		,
Shell is inestane fragulats: univer Amounts of line-graned phosphate in  the mutily - Well indurate hight-gray hinestone stringer from 108 to 110'  110-115 passey to Adadogulary indurated - Light pray sound hinestone without when the strings and thinestone fraguents wisher culcile replaced dells. minus Amount of fine-grained phosphate sound grains  115-120 some he have  120-126 some as Above: Stopped drilling @ 1750 TD= 126; comple taken	105-110	
tremetry - Well indurate Light-gray Linestone Stringer from 108 to 110'  110-115 parcy to Abadoquily indurated - Light gray Sound Linestone w/ abounds  stell & Linestone frequent w/ some culcile replaced stells, minn amount of  fine-grained prosphate sound grains  115-120 some as About Stopped drilling @ 1750 TD= 126; Gample taken		
110-115 parcing the Addresseld indurated - Light gray sound Lingstone whatevorted Sell & Linestone frequent whome culcile replaced shells, minus amount of fine-grained prosphate sound grains  115-120 some he have  120-126 some as Above: Stopped drilling @ 1750 TD= 126; comple taken		
dell & Linestone fragrank w/ some outche replaced shells, minn amount of  fine-grained prosphate sand grains  115-120 some he House  120-126 some as Above: Stopped drilling @ 1750 TD= 126; Gample taken	110-115	
live-grained prosphake sandgrains  115-120 Some he House  120-126 Some he About Stopped drilling @ 1750 TD= 126; Gample taken		
120-125 Some as Above: Stopped drilling @ 1750 TD= 121; Gample taken		
120-125 sine as Abore; Stopped drilling @ 1750 TD= 1211; comple taken	115 - 120	
5 1 IA /	120-125	

PROJECT LWC Florida WELL NO. LZ-TW DATE 12-16-93

. DEPTH	DESCRIPTION - ROCK TYPE, COLOR, HARDNESS, OTHER
+2 NOTES	Re-circlocated mod in bore hole from 0905 to 095; clearing
	stumped material
Tripped	who bare hole w/ 5th String @ 0930; began drilling @ 0935
	5 Le 130' then shakes motor quil @ 0943 TD=130'
	The 125 to 126 interval taken @ the and of the day on 12-15-93
·····	was included into the 125 to 130 interval sample.
125-130	poorly to moduley inducated-Light-gray sandy Linestone w/ Aboundant
	shell & Linestone fraguesta Miños Amounts of well is directed Linestone
	stringers: minor Amount of tipe-ground phosphale sand.
Deilli	y Stopped @ 0943 TD=130; 18" stell sorface casing will be
set	to 120. The majority of samples above were taken from the discharge Line the mud-pamp pit. mud pump   - surface pit is strainer.
USime	a strunga pit mud
Note: The	165" hole was reamed to 22" due rufe on 12-20-93 to 12-21-93
i	18" steel surface casing was set to 120'bls. The 18" steel casing was
the	a growled into place using 140 bags of weat portland coment types II
•	weight of 116/galow 12-21-93. The 42" steel surface casing was
	noved on 12-2293 and to discharge Line to Staker board was remnected
	the 18" steel surface casing during the closed according mud rotating
<u>dr</u>	illing process.
<del></del>	
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# PROJECT LWC Florida WELL NO. LZ-TW DATE 12-23-93

DEPTH	DESCRIPTION - ROCK TYPE, COLOR, HARDNESS, OTHER
130-135	
	w/ Abundant mollosk shell fragment - medium granned quante
	sand is within the Liney-mud matrix, w/minor Amounts of
	phosphelic fire-grame ( malinul ( fast to moderate drilling)
	some Palcite replaced mollwik shells's fragment
135-140	"Some As Above"
140-145	"Sme As About"
145-150	sme As Above"
	Tripped out of borehole @ 1705 hr
,	Tripped into borehole @ 1715 hr.
120-125	Lt-gray poorly to mederately in durated sandy Linestone
	w/ Abordent mollusk shells is shell tragment contains few
	Stringer of moderately to well indurated Liny sandstone gray
	in color.
155-160	Sme as about
160-165	SAME AS Abone
165-170	spine as about
170-175	same as above
175-180	SAME AS Abone - w/ Luger Amount of will inducate gray som US.
180-182	some as above - Kelly down @ 182' @ 1755 hr.

PROJECT LWC Florida WELL NO. LZ-TW DATE 12-27-91

	DEPTH	DESCRIPTION - ROCK TYPE, COLOR, HARDNESS, OTHER
	Kelly	down 182 feel below Landsvituse @ the start of the day
	Drillen	re-circulated: the mods and cleaned out the borehole.
	Tripe	ed into borehole @ 0956 hes.
	180'-185	Lt gray moderably indurated Limestonia w/ some stringer
	-	of well inducated gray Limeston; contains 10 to 300 medium gramed
		guaste sand with Limston matrix, Abundant shell fragments
		minor Amount fire to coarse gramed phasphatic sands
	185-190	Same As Above wincreasing Amounted It gray line mud
		towards 187-190 minn amount of fine to coarse grained phosphatic smids
	190-195	poorly to inoducally indurate It-gray unestime / Lim mod , Approx
192 (Han Pec	thorn thoup)	192 to 195 drab slive green-doloselt (Hauthorn Fm) ul 1 to 50/10 programa
	195-700	into mixture of Lt group Line mude (micrite) we the olive green de lucutt
		few Strengers of moderately in donated Linustens (fast drilling)
	200-205'	Same Abave.
	205-210.	majority of introd ansists of olive - green that we few
}	<u></u>	Stringer of Lt gray Line med! 2 to 50% prospholic self and fine Qte
. }		Kelly down @ 210' 0940 hr. Total time for this string 2240min
		Respect back into hole @ 1003hr.
·	210 - 220 25mple 210-215	dank green (olive) Lime mud detail w/ 5% phospholic silt.
	215-220	This interval contrains Tew stringers of Lt-gray to butt rolored Line
	<u> </u>	mud now minor amounts of well in dorafed Lt. tem quest 2 sand stone and
ļ-		Shell fragments, 1% pourse-graned phasphatic sand to patalle size.
<u> </u>	226- 225	SAME AS Above w/ 1855 frequency of the tre well indurated somesting
	235 - 230 230 - 235	Dunit green plastic clayed detail why minor smarr of shall fagurents
1.5	45-	Drak green photics clayer coloself w/ stringer of fell beds
-		contained in this interval.
-	235.240	Dank green plastic clayer detail w/3 to 5% phosphatic self and mine
-	<u> </u>	Amounts of sand sized shell fragment. Kelly down O 1503 hr242
-	NOTE:	From 210 to 235 duration of the drilling was 2 hr 27 mins @ Approx
-		the 236' mark the mid promp stop and repairs were made to the system
-		by a Catiphlan pepin man. down time from 1235has to 1445 has
-	. 1	recomed drilling @ 1445
<u> </u> _	6009	Confining Unit from 192 to 240

PROJECT LWC Floriden WELL NO. 12-TW DATE 12-27-93

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DEPTH	DESCRIPTION - ROCK TYPE, COLOR, HARDNESS, OTHER
240-245	Dank-green - Draboline blastic Clay (delocate) w/ min on Amount
	est shell and Linestone, no votable Amoon to al physohelic siltons and
	present very small amount of fine graned mutical.
245-250	"SAME as Above" NOK: for well indurate LS and Shell frequent may
250 - 255	" some As Above" be cross contangentin from Above? No
255-260	"SAME AS Above" Visible fossil I shell fragments)
265-270	SAM AS Above "
<del>20</del>	Kolly down @ 273 @ MD he Total Time for this in total
<del></del>	was the 45 mins, (273' was Added to Next interval.)
Resum	od drilling @ 1720 hr.
770-775	drak-olive green; plastic about vary minor amount of smd mutation
17	inthis interval (very good contining unit)
275-280	dank-olive green; plastic sondy Chay: contains significant Amorat
	of Qtz smds (faster delling than 270-275 interval) good contining out.
280-285	same as above" (possibly very thin stringer of Lt brown sandstone)?
285- 290	1 Some ras Above
290-295	Dark-olive green SANDY clay whoig nitical Amount of course grained
	cande on poorly indurated on teturo; miner Amounts of dell fragments.
297- 302	medium-oline green soundy clay on alway sound w/ Approx 10-15 1/6
······	sell tragments.
302-304	medium-olive green sund on poorly indurated sounds fall w/ runge
	volume of clay moderial w/ minor About of shell fragrants.
	Volume of May mutural w/ minor About of shell fragrants. Kelly down Q 1815 hr @ a Total Depth of -304 1 Left site @ 1845to
· · · · · · · · · · · · · · · · · · ·	
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PROJECT LWC Floridam WELL NO. L2-TW DATE 12-28-93

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DEPTH	DESCRIPTION - ROCK TYPE, COLOR, HARDNESS, OTHER
NOTE:	Kelly down @ 0800 hr pasomed drilling @ 0827 hr.
	combine sample 302-305 into 302 to 305 sample
302 - 30 <i>5</i>	dark due -green to gray color sandy clay w/ 10 to 15011.
	fine to redion grained Otz sond. Morion Amount of phospheti
	self and sends
305 - 310	dark Olive-green to gray color sorry clay w/ 20 to 250/6 time
	to median grained and i miror amount poor induration butterly
	Linestone stringer within this interest
315-315	don't pline-green to gray colonal sondy clay w/ 15 to 20% fine to
•	nedum graned sind; significent smoort of bit chaffer @ 312; w/
	moderately to well indurated sendy Linestone and shell frequents; minn
	Amountal sulfisize phasphate grams
312.350	medicin - gray colored poorly to modulely indurate sondy simustary
	"biogenic Linestone"; signif bit chafter through this in terry ! minor
	Amounts of It-gray mitrific Line and; 10 to 15% fine to medium
	granel ate sand
310-37 <b>9</b>	well indurated sandy Lineston - duck gray in colon with of pourly
	indumbed smally clay matrix: Very conse to peoble sized Qtz grans
329 - 335	medium to Lit gray smdy clay matrix w/significant mount of
	very course to pebble size Qtz a phosphatic grains and shell frag
	ment stopped drilling @ 0915hr. 46 mins to dull this introd.
	Felly down @ 0936 hr.
	Stopped drilling@ 1010 hR.
335-340	medium to Lt gray Linestone : w/ a significant fin to median gran
	Sand component; self phosphalic gians 2 to 5% w/ minor amount of
	shall forgrands (how parments 1. ty)
340-345	some as above (Low payments. 1. by)
345-350	4+-gray poorly to moderately indurated sandy Linestone w/significat
moderale perm.)	
345-3501	"sme As 13 bove" ( moderate perpers. ). by
356 - 355'	sme as above (moderate permentility)
sss- 310	Some as abure. (modusk permeab. 1. by)
	1

Social for

1.35

### PROJECT LWC Floridan WELL NO. LZ-TW DATE 17-28-93

DEPTH	DESCRIPTION - ROCK TYPE, COLOR, HARDNESS, OTHER
NUTE	Kelly down and Resoned drilling @ 1027 hrs
365- 370	Mixing small portion of this ir tend365-367 due to cleaning
	OUT the bottom of the borehale upon completions of the last string.  (Low permubility).
	(Low permoubility).
770 - 375	Light - olive-green to medium gray sandy self clay
3,5 0,2	Med plashers. In medium gray sundy self clay  med plashers. In the fire the plashers.  Minon amounts w/2 to 50/0 silty phosphatic  grains.
	grains.
375-380	"Same As ALORE" (good confining unit) Low permemberly
380+385	"Some As risers" (good contining unit) Low permeability.
385-300	"Some AS ABOVE" (good confining unit) Low parme abilty
<del>3% 392</del>	same as deare have a see for formants
392 - 395	Tight gray linestone, well indurated, shell fragments
	some (2 % % 5%) phasple to fac to the and said stringer of well indend
	Kelly down to -397 - 395 to get moved to Next interval 395-40
	Resumed Arilling @ 1145hrs
395-400	dut olive-green to gray-soundy clay w/ silt to fire grand sunditure
	very phyable and platic (Low parmeabling) 2103% phosphatic station permantility)
400-405	very slow drilling date, more if high Gamma Kick on Gamma Log of
	this interval.
NOTE:	Drillery delayed due to leally mud Line from 1320 to 1345 hr
	Lithologically & dank olive green to gray sulty sandy clay very phable
	and plustic higher conc. of time to median grained phosphatic sounds
	contain 5407 % phasphatic sonds; selfor decreasing toward 404 (very Law penns)
402-415	Druk Oline-green to gray Clay / W Minon amount of sell and compenent
-	phosphalic sill's very fire sand 3 to 50 to. Very prostic and phable. Very Low perm);
412 - 413	light tan to butt color moderately to well indurated Linus tone containing
	medium to very coarse grained (prebles) of Quentz grains, \$150 contains whole
110 1100	and fragments of both mollust and gastropods, (storm event?)
413- 420	Dank oping-greet to dank sandy clay: very plastic and pliable
	runting line to medium grain Quarte on LS fragments. No shell fragments
1130 1125	1+12% phosphatic sitters and component
420-425	sulfo fine and component (very Low promodulity)
l	Isute the sand compress ( very con princes, (174)

PROJECT Luc Florida WELL NO. LZ-TW DATE 12-28-97

DEPTH	DESCRIPTION - ROCK TYPE, COLOR, HARDNESS, OTHER
	Kelly down @ 1545ha to a depth of 428 feet
	Resumed Drilling @ 1553hr.
425- 430	Dank olive green to gray clay plastic very minor sulfished.
. 32%	Dank olive green to gray clay plastic very minor sulisand.  Component 1 to 2 % phosphatic SIII i time sand. (Low permeability)
430 - 435	sme as Above"
432-440	minor fire and remponent whin the Linestone MAtrix; some Clay mutrix
	minor fire and component 41 in the Linestone MATrix some Clay mutrix
440 - 445	renteins 1 to 3% shorphatic selt to very fing 5md (moderate permerblity) "S Ame As About" 6 About shell fragments (Low yield) "S Ame As Above"
445 - 450	"SAME AS Above"
450- 455	"same as above" (modulate permentality by + probably Low yield)
455 - 460	"SAME AS Above"
	Kelly down @ 1700 hrs to a dipth of 460 feet
	Resoned drilling @ 1705
460-465	Lt-gray to tan colored; poorly to moderately indurated Lines time
	shell fragrent 1 to 3 % phasphetic fine some (moderate process) by Vield)
	shell tragnent ( to 3 % phasphatic fine sand (moderate perore ability VIE 1d)
465-470	SAME AS Above" moderate parpresibility (Mid Hunthon?)
470-478	SAMO AS About
<u> </u>	Lt-gray; poorly indurated Limestone Within a Lt gray micritic
	mud; Approx 1+3% fine phosphatic smal; NO VISIBLE fassil
	fragment The mightic much matrix has orderate Amountal fine
	Smd. Law permeability).
	Stopped Drilling @ 1740 to a total depth. of 480
-	Prilling was stop so that the drillers could pull the drill to
<u> </u>	incerta rubba around 18' sortice casing to stop Artesian flow.
-	
l <u></u>	

1312

Production of

# PROJECT LWC Florida WELL NO. LZ-TW DATE 12-29-93

!	DEPTH	DESCRIPTION - ROCK TYPE, COLOR, HARDNESS, OTHER
		Began Drilling to remainer of the rod, not completed from
		the Day Before Began drilling Q-480 bls @ 0800 hrs.
	480 - 485	Lt to redism gray sandy-Line mod (Micritic) w/ 10% fine sand.
	. to ex	component; 14.4% self to fine gramed phosphate I Low permeability)
	485- 488	SAMO AS Above Sandy
	488- 495	17-gray to tem colored; pootly inducated Limastone (poorly inducated)
77,0		micritic time mod) w/ 1 to 3% phospholic celt is fing sand (Low perme billed,
6 ' '		Kelly down @ - 490 bls @ 0928 hrs (10 foot section 27.5 mins)
		Rosumed drilling. @ 945 hrs.
	495-500	Lit-gray: poorly to mobinety indiractly sundy Linestone (micritic)
		contain 2404010 phosphatic cell's fine sent; contains some well indulated
		Linestone should is shall fragment; contin high volume of Line mod (micrite)
		matrix (Low permeate. lity).
	202-002	ext-gray poorly indurated sandy microfic Line mod/ how tree w/ 2 to 5/4
		phosphatic self & fire sand; mison and component and shell tragnet ( sem)
KJ 522	202-5W	Ltgray poorly to moderately indurated sondy micrific immend Hirestone
10360		rantin 2 to 7 10 phosphetic sell's sand. contins stell fragments, moderate
	<del>S-10-5-1</del> 5	parmechility (Law yield)
	210-515	Sme as About
-	₹1€. CSØ	Lt gray pourly to well indorated andy Linestone; w/ moderate Line
		and component, contains some secrystallized shell tragrants and
		tew internal molds (Low to moderatet permeability) probably very Low yield
		Kelly down Q - 522bls Q 1036 hr. (total time for 30 interval 48 mins
	520 525	Drilling resoured @ 1050 hr.
	2 20 - 251	Lt gray to tem color pourly to moderately industed sandy Linesters w/microcrystalline rateile / replaced stell fragment; magnificent time med
		sandy micritic matrix 1 to 3°10 phosphatu sands and self 5 to 10°10 5 md
	_	fine to very fin gramed (Low primers, 1, ty)
	525-530	Some As Abuse
ız.	<20-535	Hagray - poorly to moderate indocated Linestene wheelve change (mention
16 2 2 2 2 2 1 2		MATINE rombins 1 to phosphatic sands some well indocated soundy hingertine w
_		replace & (mixrocrystalline calcit) shell frequents (moderate perments lity)
	535 - 539	sing as About.

12.49.1

#### WELL DRILLER'S LOG

#### SOUTH FLORIDA WATER MANAGEMENT DISTRICT

PROJECT LUI Florida WELL NO. LZ-TW DATE 12-29-93

DEPTH	DESCRIPTION - ROCK TYPE, COLOR, HARDNESS, OTHER
539-545	Lt-gray - so sondy Line mud (micritic) poorly indunte relativite
	Nortain time to course grained Linestone frogress, ( Wery Low pormerbility)
545-550	Contain time to course grained Linestone frog news. ( Wery Low permentilly contains time grained phosphistic sond; we shall tragments.  some as above bot contains trich concentration of phosphistic sonds and selfor was the permention of the perme
. /	Kelly down to 554 bls @ 1212 he total time = InaiThing
	Drilling resumed @ 1244 ha.
220- 222	Lt gray sandy (fine to median gramed) Line mod (MICRIFIC) w/ 10 40
	fire to rediringramed curbonak sonds and shell fragments, 2 to 5% Phosphotic
	silt; contin some moderately indorated from Lineatono (Low parmow bil. by)
222-260	Lt gray sandy live mud (micritic) 5 to 11 % fine to reduin graned
	Contemple sends and shell 110 3 % phosphatic sult contemps few well
	Continuate sends and shell 103% phosphatic sell contems few well industed sendy amostme on sucrocryst-line (replaced shell frequents) per mechality
560-565	Some me Aboue"
565-570	Some he showe"  Corporate must combinate  Li gray micritic looze w/ minor sond size b temporant very sticky
	and firm to 3% phosphatic self. Kery Low permenb. lity
57 <b>5</b> - 575	"SAME AS About" (very Law permerbility)
515-580	"SAMO AS Above " (very Low permerbility) minor ambonute and anoment
	Kelly down 585 @ 1400ha. Iha 17 mins.
580-535	Lt gray- sonly emborate mod w/ significal sill and sound component
	Also contains shell fragments. (Low perments. 1, ty) 1 to 3° 10 phosphatic
	self to fine sand component.
	Resumed dulling @ 1425 hr.
585-390'	Medium gray son day combonate mud suft w/ significant medium to
	Course graned continued sands of five to course grane & Phosphali
	L
590-595	Lt gray continuete culta clay w/ strate for medin to
	Coarse granical continuate sands poorly indurated, contain 5 to 7%
	fire to very coasse gramed pheapholic sande (tirm) (Low permeub lity)
595-600	Lt gray an brule self ! alay (miertic) poorly indurated primarly
	a Line mod (Low permeab, 1. by) contains 3 to 5% phosphilic fine to come
	grained
600-605	some as above; contains sighly higher anout of course grained whomphalis
	Sonds. (Low permeab. 1. Ly)
605-610	I some of above." (Low perment. I. h.) contine aligher higher and
	A 31.2 to breaton dromes hospite i compared beginning

160-1530

#### WELL DRILLER'S LOG

#### SOUTH FLORIDA WATER MANAGEMENT DISTRICT

PROJECT LUC Florida WELL NO. LZ-TW DATE 12-29-93

DEPTH	DESCRIPTION - ROCK TYPE, COLOR, HARDNESS, OTHER
610-615	Lt gray carbonate sondy, contain significant a confunction mud: sut
	contain 5 to 10% medium to very coorse grand phospholos tre
	phosphaticsand make this interval very como graned but still very.
	clayer (Low permeability)
	Kelly down @ 1532 hr @ 617 bls Total time: Ihr & Friest
	Rasoned drilling @ 1803hr.
615-623	Lt-gray conbonde sittlelay - micritic poorly indurated mines
	product of contemple sands 1 to 3% phosphate From 617 to 618 coase
	grained smally clay of fine to very coarse grane of phosphate From
	Choistate names
623-125	median ofre goest - grown sondry-silley Line mud-micritic, poorly indured
	moderate amounts of shell fragments very 1. He prosprate: 21%
625-630	Lt-gray poorly indurate smdy Line mod (microtic) medium grained
	· Carbonak Sand component. Contains; Approx 1 to 20 Silt to fine ground
	phosphate; min & smout of thell frequents
(30-634	dark to modium dive - group microtic core containing 10 to 15% fine
	to coorse grain contamate sand and shell frogrants (very Low perments hity)
634-640	Et-gray sandy-silty michite w/ 15-20/ofin - to coase graned carbonate
	sond and shell fragment rontain self to coarse graned shosphale;
	content minor amounts of moderalely inderated ten Lineston, (Low to
	very con princatility)
640-645	some as above
645-648	Sme as Abuse: away be can bined w/ Next in terrel
<u></u>	Kellydown to-648 bbs @ 1717hes Time interval: The 14 mins.
	Stopped drilling @ 1725 hrs ofter Marring out the borehole key
	arrestating the mode
	/

PROJECT LWC Florida WELL NO. 17-TW DATE 12-30-93

	DEPTH	DESCRIPTION - ROCK TYPE, COLOR, HARDNESS, OTHER
		Began drilling @ 0940hes @ a depth of -648 bls
	<b>A</b>	cleaned out the borehole for 0905 to 0930 hr. by re-circular,
		to drilling mud down the drill steps.
35	648-622	It to redion Gray michilic Line stone prorty indurated; firm
27 P. 194		minor continue fine send component 1 to 3 % shosphatic silt and time sand
		( very Low permeability)
	655-660	Lt of medum Gray micritic Limestone (Line mod) poorly indurated
		mining carbinute and comparent; phosphatic selt to vary coarse ground and
		(very Low permerbility)
	660 - 662	sme as above; but slightly ligher gray w/ minor shell fragonit
•		component.
	668- 670	Lt-group poorly to moderately indurated Lineator w/ sighty hime mud
		component; some replace shall fragments (LOW payments, lity)
	670-675	Lt-gray poorly to moderately indorated linesta w/ 50 % micrite
كطاعيهم	y start	mater some majority is composed of stell fragments reduced
Fall 50	world	Amount of phasphale in microte matrix, important margin minor pin hole porosity
		Kelly down @ 1035 @ a TD of 679.
•		Resurred drilling e 1056 hr.
•	675-680	it-gray poorly to industely inducated Line stone w/ 5006 autoreous
		Micrific mod' contenes 1 to 2 % fire and silt phosphotic nates of some
-		very coarse to petale size phus plate (Low permability) smo shell frequent. anoself.
	680 - 685	Lt-gray poorly to well inducate Limerton N / 30-40% combinations
		Microfic mod metric contains some replaced shall fragment 1 to 20% 511+ itie
		Sind shouphakic w/ few peble size shouphake ( Low pormago lity)
	685.690	"sme As Above" (Low parmer bility) 30-40% micritic mud matrix
	690-893	SAME AS Above (Low permers, 1. fg) 30-40% Micr. tic mud matrix
	693-697	nedium gray to poorly to industry industred Linestone w/ 60 to 706
		Microtic and matrix (1 to 3% time phosphatic smood (very Low permeability)
	697-700	medium to light gray moderately individe Lines w/ 50 to 6006
		migrific and matrix 10/0 phosphate prince dolouth component.

....

3

# PROJECT LUC Floriden WELL NO. LZ-TW DATE 12-30-93

DEPTH	DESCRIPTION ROCK TYPE, COLOR, HARDNESS, OTHER
700-703	medium to Lt gray paperly to mederately inducate Gires have W/50-60%
	mirrite med mitrie 100 smarphale (very Low permeability) highely autol
703-708	median to Ligray moderately to poorly indusate Linear w/ 80-75%
3.1	Missite and Matry 10.5% fine phoshate (very Low permability)
	Kelly dowN@1210 has to TD710
	Resomed drilling @ 1342
708-710	It gray to other green poorly indocated timentine; contains significant
	smout of references muds/metrix; contains internal molds and fire to
	course gramed phosphates contains by a som (monute; gentral; mollar & interval
	mold (Low pameability) ranton few dolasilt well indurated fragments
710-715	Lt-gray to It olive green poorly to well indurated Lines times; content
	30° to 40° 10 calcereous mud mutily contens 1-2'10 fine to coorse graved phesphote
	w/ goodropodi nellusk internal mokes: contin few total mell indurated
	dolostene. Limited sparpulate coment within internal molds. (moderate permon bility)
715 - 720	"Some AS Above" 20-250/0 paterroou (micritic) materix (moderate permability)
720 - 725	"Some as Aboro" 20-25% outrepreodemicritic) mutin) moderate permetti. h.
125 - 130	Isame AS Above 20-25 % Micritic matrix
730 - 735	"Some As Above" 15 10 Microfic mutrix (moderate to good permocability
735-742	"same to Above 10-15% micritic matrix) molegate + good permate lity)
	Kelly down @ 1445 to a total dopte of -742 bls.

10-1497 TD=142

PROJECT LWC Floridam WELL NO. LZ-TW DATE 1-11-94

[	DEPTH	DESCRIPTION - ROCK TYPE, COLOR, HARDNESS, OTHER
	OLI III	Tagged coment plug Q-718 from growting the 12" steel
		rasing drilled-out coment plug by mud rotary method.
		Begam drilling companied Rock unit@ 0710 hrs.
	742 - 750	missing interval: This interval was highly contominated of Aboundary
'	172 130	gray coment fragments from dulling-our tre coment plag - drilling stopped
		of =750 to alean-out the casing and bore hold of the count fragment -
		re-circlolated the mul for Approx 20 minutes
1435	750 - 755	dark to mediam gray poorly to well indurated Linestene w/
26 scur	120-133	Approx. 50 to 60 1/0 medium mictric mud as madrix; No tassil tragment
4.		1 to 2 % fine and phosphate. (Low perments lity)
	785-762	conk to median group poorly to well indocated Line Am w/ 40 to
	103-10-	50% modern gray micritic Limemed as a medica, no fissil frequent
:		1 to 3° to prasphetic notinial (LOW pormenbolity)
	762-770	median to dark oline-brown silty clay containing to 2 % silt to
		fine gramed phosphalic and w/ few well indocated gray horschine
1	· · · · · · · · · · · · · · · · · · ·	francist (mean ton agree by lity)
MIKT 107		Kelly down to -773 @ 1035 h recirculated mill for Approx
·,		stated drilling report roid 0 1058 ha
	170-775	dank-gray poorly indurate to moderately indurated hinestone / w/
fusion dr	111mg @	40-50°10 dank gray clayer micrite contain fragments of well indurated
1721	615.	ton color Linestern and mollusk shall frequences (Low perments. 1. Ly)
scala (?)	775-780	moderately to well indicated true himes true intermixed w/ 20 %
		oting-gray MICrite: contains Minor Amounts of shell fragment and
		Phosphalic coarso sands ?) (moderate perments ! h) (protestone) grandline)
	780 - 790	poorly to moderately indicated tem Linestone w/minon Amoon, of
KD-1437		olive gray micrite; contains minor amounts of coorse gramed phospholich?
KD BOH		(black material). Leps present (?) (moderate permestility)
•"	790-800	poste to moderately inducate himes the containing minariwertabrate
		shell fragments (Leps present) (moderate to good permantility) no phosphate
	800-804	Some As About. (Selecosonide - profishers to grave (Stone)
		Kelly down to -804 P 1137 hR (48 minutes) - 0) emed -007
		borehole for Approx 15'minute - will switch over to reverse
	<u> </u>	air drilling.

#### WELL DRILLER'S LOG

#### SOUTH FLORIDA WATER MANAGEMENT DISTRICT

PROJECT LWC Floridan WELL NO. 12-TW DATE 1-11-94

	·
DEPTH	DESCRIPTION - ROCK TYPE, COLOR, HARDNESS, OTHER
	Switched over to reverse -air drilling @ - 804'bls - clear -out
	mod from within the borehole and invested other-line inside drill rod.
	Began to drill @1540 has @ -804
804-815	moderately individed tem Linestone (mude lene to wackstone) w
	minor Amount of recryctallized shell fragments. minor pin-hule
	and midic porosity de relapment - (moderate permeabilite)
815-825	some As Above "However miner mount of poorly in doraled
	micrite (Limmod) from 817 to 819' (moderate permeability)
125-836	
	minar stell fragments; minar some laf contamination of gray-green
	along from showe ' ( moderale permentilly)
	Kelly NOWN @ 1758 hrs. to a total depth of -836'bls.
	Stopped drilling and of day.
836	1)
_	
<del></del>	
<del></del>	
l <u></u>	

PROJECT LWC Floridan WELL NO. LZ-TW DATE 112-94

	DEPTH	DESCRIPTION - ROCK TYPE, COLOR, HARDNESS, OTHER
	DEFIN	
		depth w/a chloride reading of 965 mg/L.
	836-845	It tem, moderately indurated himestene (moditione to wackstone)
40=1031		or calculative conteans minor amounts replace shell fragments, of expediention
rection 1		we well developed type of porosity in this interval (moderate permeability)
₽₹	845-855	11, tum, moderably indorate Linestone (mudstone to wastestone)
		or calculate; ranting mina Amoun of replace a hell tragget but more
		then Above (836-845 interval) minor concentrate of Leps. (midrate porm)
	855-860	Lit tan moderate to well indurated hingstone (muditure to pacies time)
		10 / pin-tide and small moldic points by contains few recrystallize shell (reminuted spines)
976. <u> </u>		frequents and more concentration of Less. (moderate to good permentilly)
.,	860-865	It to to light brown; moderately to well indurated Linestone
		(weck stone to preksterne) high rencontration of heps contins
		increase runbe of replaced tops and other still fragments promount they
		Kelly down @ 1031 hr. to a total depth of 868 bls.
		re-circulated makes for Approx 25 mins, chloride recoling of 976@16/1
,		@ 868' bls .
		Stated NexT RODQ 1107 hrs
in trace of	865-867.	From to Light Brown moderately inducated (wasted-time to grame to be high
170		concentration of Laps up some recrystallized shall frequent as microssystallie
		Honorystalling Linestone (moderate to good permeability)
	867 - 877	time to light Brown moderately to well indurated Line (wackstone
		La packes time: contain punerous hops wifew recrystalfized Thell
		frequent-(moderate to good permerbitaty)
ئے	877-879	L+ gray moderalely to well indorate Linestone (grainstone)
		individe il grans une comental together w/ visible signs af moldic
1158 TD 897.5		and pin-hole porocity ( high permeability depending on volume of along matrix
		And was lost in the drilling fluids. (milky asschange) model to Good
	-	permay b: 14y (higher volume of discharge after this point
	879- 889	It gray moderately inducate himestone (grainstone) contains Numerous
		prystalling himstone fragmonds. (high permability) high value of milky
		dishinge (feel drilling through this interval)
	,	

PROJECT Luc Ploride WELL NO. LZ-TW DATE 1-12-94

_		
	DEPTH	DESCRIPTION ROCK TYPE, COLOR, HARDNESS, OTHER
	889-895	L+ brown to lan color moderalely inducated Limestone (grainstone)
		In Individual grains give it a succession textore. Sme crystalling Linestone
Ī		fragment (Good permerbility) (fost drilling).
	* ** **	Kelly down @ 1158 ha to a total deste of 897.5 total time 58 mins
İ		Chronide vale @ 897.5 Was 9 mg/c
		Stented drilling @ 1228has.
·	195- 905	Tan to Lt brown poorly to moderately indurate Linestone (wackstone
		to puckstone individual grains me mud supported contant numerous
ĺ		LA brown recrystallize shell fragments; ten lops it all pracent must install
Ì	905-915	same as above (moderate permerbility doe to unrable microte content
		w/ better induration ( no derate to well) wasksterne to prockstone.
	915-925	It to to light brown moderate to well indosated Linestone (weekstone to
İ		packstur icontems hight brown recrystallize shall fragment on Line
		Stone frequent (moderate permentility)
	9 <b>25</b> - 925	It too to Light brown moderalely to well in donated Linestone (
K D- 1329		DACK Stone to grainstre contais pomerous recrystallize shall fraggered
75P-929		within this interval somewhat a sucusic texture to be well indocated
	· · · · · · · · · · · · · · · · · · ·	Limisteno fragorants. (moderate to good pornochility).
		Kelly down @ 1325 has to depte of 929 bls total time 46 mins
		Chloride value a 929'bls was 917 ng/
		Drilling stated 1405 has.
	925-935	
1LD-1439		parketing) routing a few foodlindorated recryptallized shell fragment
10760		or crystalline ralete fragrente (fast drilling) moderale permoestribly
		100 idultisable micro or mocro fossil insiale.) duchange weder is
		milky inducte considerable amountal microte present
	935-945	"Sume As Above"
	945-955	13 Sent As Above."
	955-960	"SAme is Above"
		. Kelly down @ 1439 to a diplical 960' bis tofal time. 35.5 min
		really foot drilling through this in townel indicate poorly to moderably
		industried Linestone primarly puckstone's weekstone
1		Chroide value @980'bls

PROJECT LWC Florida WELL NO. 12-TW DATE 1-12-94

[	DEPTH	DESCRIPTION - ROCK TYPE, COLOR, HARDNESS, OTHER
		Standed dar Mary @ 1310 Ma
	960-970	Tan colored poorly to moderately inducted Linestone (moderate
	160-110	To walkstone contains represal fragment recrystallized shall fragments
	4 8 75	high amounts of michilo in the property to moderately induste Line siture
		(John's patellutite) some pro-hole and moldic porosidy
ı	970'- 980'	"Same as about"
TD= 991.5	980- 990	"SAME AS Above" but contain whale echinderms and for large
Tere SAPME	F	forms: contains lew Echinoid fragments.
16.		Kally down @ 1545 to a depte of 991.5 total time 39.0 mins
	<del></del>	Chlorides @ 991.5 wess mg/L.
		Stud drilling @ 1626has
	990 1000	Tan colored, poorly to moderately indurate I investme ( mod stone
		to weekstone ( rapidot, te) contin moderate amount of recrystallize
1023 10 943 KO=1714ha.		shell fraguents and happed-regarding shell continue several while
To hal free		Vinda services
4 5.5 mm	1000-1010	SAME AS Above
	1010-1020	"SAME AS A BOVE" but w/ more recrystallize & shell frequent
•		an better in dorate mudeline to wackstine (romain Lage sand Lors)
	,	17/12 in diameter echinoderms (sand dotters)
		Kelly down @ 1714ha to a depth of 1023' total the of 45.5ming
		Chlorides @ 1023 were
	<del></del>	1020 to 1023 interval will be added to Next days drilling
		Mteroal 1-13-94.
	1020-	
		-

# PROJECT LWC Florida WELL NO. LZ-TW DATE 1-13-94

	DEPTH	DESCRIPTION - ROCK TYPE, COLOR, HARDNESS, OTHER
		Starting Depth interval 1020 bls. This @ 1023'
		Started. @: 0805 hrs Q a duth of -1023 bis. Chandout bylone 32min drilled to -1025 that tet the wake circuit for 32 mins.
KD-10894	1020-1025	drilled to -1025 that tet the wake circulate for 32 mins.  The notored poorly to moderately indurate himseless (mudstens principly)
TO 1055 Time Semin	o galengea	Coalcilotite wi fragment of microcovabiline pulcite, recrustallized fossil
111-0		fragment w/ whole echinodotins ( sand dottors) 114 to diameter, receys believed
		interior section of the echinoderm shells, in filling of the micrite. ( moderate perce)
•	1025- 1035	to colored specify to midually inducate time stome (mids time)
	7025-7033	(calcilotite) w/ orfole 1/2 to 1 dimeter echinoderm Shells ( and dottors)
		w) crystalline (sparry orlaite) lining the inteninal the sand dollar. a loo
	<del></del>	contains microcrystalline golden wouldfood relaite frequent throughout
		•
		This & intercal. I contin chanks of micrite - poorly to non indunted)  Also served chocolate brown mecro-crystalline dolomite frequent within this intercal.
	1035-1040	SAME AS ADOVE
	1040-1045	(logobarechinoids) sea orchins
		hatter indurated met Less poorly indurated microse few Abone.
	1045-1055	
		w same hanger fragments sharing pin-hole a small moldis perosity
		contains 14-1/2" whole ochinodorms (Sea) differs (Low to modiate
		permeability)
		Kelly down @ 1030 hr to a depthal 105 Str Total digit of 55mm
		Chinide value of 900mg/ 0 -1055 bis.
		stated drilling NEXT rod @ 1105
	101055-1060	Tan colored; poorly to moderately indurated Linestone ( Regolar echinoids sequenting.
TP= 1086 Time.88		(mudstone tocalcilate) contine Longe volume of exhinadera (sand dellas)
Potolil		will large value of recrystallized (sparry calcite) shall frozzent
conta	1060-1040	you colored moderably indurch Lingstone (meditine - calcolite)
- 0MM/6/6	<del>2</del> 4*	or a moderately indusale biomicine, cardens longe volume of whole
ingicules is		m echinodum shells & fragrent; who tew piece of poorly indocated micrite
Prode	1070-1080	Sme is About but shally peter indurated (moderate perneability)
		. fret drilling from 1015- to 1085
	1080 - 9085	"Some as above moderate permetility
		Kelly dows to 1207 he to 1086 bis Total fre 58 mms
ı		Choride value of mala @ 1086
,	check densing	10 1045'bis

PROJECT LWG Forda WELL NO. 12-TW DATE 1-13-94

ſ	DEPTH	DESCRIPTION - ROCK TYPE, COLOR, HARDNESS, OTHER
Ì		stanted drilling @ 1235 has.
(32)		Tan colored no desafely indorated Linestone (mudstone - rakilude)
TD 1118.5	1082-1095	phylliam schinoids; in ( ) while scand dollars
	- Qui (mark	D
	1042-1100	"SAME AS Above" (moderate perma/bility
·	1100-110%	poorly to moderately indurated In Lines times a sandy Lines time.
•		(wackstone) w/ some fragrent of crystalling valente, possible recrystles
		after microbe, no visible echinodern passible fragmonts.
	1108-1111	- It gran poorly indorated micrite Nense; minor silt companent
		to this interval. That Location not know due to the dense different before
		the Lange charks of Linemad: small moderate indorate Livestine
		(Low permembility) - "Check geophysical hours for exact depth
4	1111-1115	Tam to but Bit's colored moderately inducated Linestone & wacks time
		some pin-hole porosity developmentseen is the Longe cuttings
		some what of opinos sucrosic texture to the mod in Junk wackstene
		(moderate sermentility) due to the decreuse clay component them
		The material ploup.
	1/1	Kelly down 1118.5'bls @ 1327 hrs
• •		Studed pext drill rod Q 1425 hrs.
الدد	1115-1125	tan to Bolt colored, moderally indurated timestine (waskestine
KP= 1734	1113 - 11 63	(ratement to).
-10		echinoids (see victims)
		mediate to good permissioning
	1125-1135	"Sme me move" but more of a wavek stone not us well
	1135-1145	developed surcosic texture (module permentily)
		La Contraction of the Contractio
٠.	1188-1120	tun to Butt colored promatery indurated these terms tend to be considered
·		primary but higher contemate mud content in this interval (moderate
		perments. I. by.
		Kelly down 0 1737 to a depth of 1150 bis
		. Chlor, de coma Q 1150 hls is 80 mg/c
KD=1833		Started drilling to next 30' vod Q 1755bR.
10-180		complete 20 of Next doill rod

#### WELL DRILLER'S LOG

#### SOUTH FLORIDA WATER MANAGEMENT DISTRICT

PROJECT LUC Florida WELL NO. UZ-TW DATE 1-14- FY

	ОЕРТН	DESCRIPTION - ROCK TYPE, COLOR, HARDNESS, OTHER
•	1215-1224	Tru colored: moderately in durated Lonestone (works true to
		packstone, : some sucresic textere of the Longe Lindstone fragments
		moderate permosbility
.•	1224-1286	modium grounde medium of we brown phorty industed sondy
		micrite ( good continement) plastic value: (Low parmentilly)
	1226-1235	tande butt nototed moderately in derated Longitude ( workstone to
		packs long recrystaltized tossel fragments (schinodonins) w/
		spung calcide mind Amount of Hightaray exercite present
	1235-1245	Some as who re?
•		Kelly downe 1:49 to depth of 1245
		Chloride pencentation Q1245 Bls was 800 mg/s
		Stated drill next interval @ 1213 He:
	1245 - 1255	Tim to Butt colored him stone (warkstone to packstone)
KD-1247		moderately in durate; continue ochinoderms wi spany calcite intilling
10 157		mind someth of poorly inducted months (moderate permeability)
,	1255-1265	Tem to higher Brown moderately inducated himestone ( wacks three to
		packestine) w/ poorty in danded micrite (continuete chay have a 1257 bis
		contains recordablized (spency calcite) stell fragment or monty retrindence
		w/ while echinoderm present.
	1265-1775	some As About, but contains pronty indurated photic microtic atom.
		@ Approx 1273 61s.
		Kelly down o 1247 hn to adopt of 1275
		chloride conc. c 1278 bls B myl
		stated drilling next plende (315 hrs
Kp-1357	1275-1285	Ton to butt colored, no desafely is duraded Linestone (walks tone)
14= Boc.		to prekstene) contains what of fraguents of echinoderm shells w/ their
		theories infilled wy spacy rulaite well industed
	1285-1295-	Since As Above w) redim gray walketie 0 1289 to 1290
	1295- 1305	Sme is power - first drill through this interval of 1227 to 1305
		Kelly down@ 1357 hr. to a depth of 1306'
1407		chinice cone of mate @ 1304'

13000 -

#### WELL DRILLER'S LOG

#### SOUTH FLORIDA WATER MANAGEMENT DISTRICT

PROJECT LUT Florida WELL NO. LZ-TW DATE 1-1494

г	· · · · · · · · · · · · · · · · · · ·	
ļ	DEPTH	DESCRIPTION ROCK TYPE, COLOR, HARDNESS, OTHER
		Started drill @ 0835 hr @ a depter of 1170 bls
		1150 to . 1170: was dilled to the End of day on 1-13-94
	1120-1122	Tan to Butt colored moderately to well indurate himstone
		moderane to wack stone; some pin-hole posserty development seen
		in the ruge outlings; contine recrystallized exhinodorn tragger
KP-0846		and whole shells ( send dellars) - flather
CV 843	1155-1165	Tom to Bloth colored moderately in durated Linestone ( wackstone to
!		packstone so coopic toxfore but also contains except a poorly
		indurated micrite; also combine exhipotorms tuchor recrustablisable
		w/a grainy textores
	1165-1175	
		packature). Succousic texture of Lugar cuttings contin some (echino dums). Spring outside represent write ochivedoms.
		recrystallizo shell fragments i well indocated precessory mudistrue.
	1175-1185	Some Ms About
		Kelly down @ 0846ha. to a depth of 1181.5'his
		Chloride toncentralin () 1181. 5' - 893mg/L
		stated drilling next in ternal @ 0944
FA 1933	1180 - 1185	LA Brown; well inducated. Lines time (INGCKStone); the deal citting
D-15		are highly frequent No Long : nock preces; smy pin-hale paravity developmed
		No visible Echinodius present. I make to good per meating
	1185-1198	7m to both colored frame moderately indicated Linestine
		(modstne to wackstme) this unit has embante general development
		but the grans are mod-supported
	1198.1203	
		(weekstre) small so fragounts of well inducated to colored modeter
		No visible fossile m fossil tragames (mederate permuability)
	1203-1210	tan colored; moderately indurate Lineston ( wacketing)
		ponton some poorly inducated chucks of MICrite
		pausing Lower permeability through this unit.
		modrate to Low so meabol by
KD: 114	8 1210 - 1215	tun colored moderately to well industed timester (wackstore)
70×12 45		W poorly inducated H gray to ten inicrite or avidating few while
		echindren present. (notacte permechility)

Regularia - Almost all are affiguignst forming sweems or schools that number dozens in unduds (echinoids) or even thousands

PROJECT LWC-Frosida WELL NO. LZ-TW DATE 1-14-Caf

ſ	DEPTH	DESCRIPTION - ROCK TYPE, COLOR, HARDNESS, OTHER
•	DELÎU	started drilling this interval @ 1530 - (1305-1337)
ŀ	·	Order outlind this tudence a 1990 (19-2 1991)
}		and a second of the second of
K4=1615	1301-1310	Ten do Brolf colored moderately indurated Limestone (warks ten.
TD-037	<u></u>	Le prochaine ) w several Linestone fragment that would be considered
		S. STEWN TOP MEDICAL TOPPEN TO THE TOP TO TH
		(modelme) from 1305-1307 bls. contin spacery colotte in billing of
	:	the echinodern shelfs is (moderate permerbility - how perma top of interval
	1310 - 1320	for to Librown colored; moderately in durated Limestone (works home
	,	to proke time; we several grainstone frogmant contin spany calsite
		in filling of echinodern stells; man amount of poory in Locate & micrit.
	1320- 1330	"Same as Above"
•	1330 - 1337	"SAME as Above"
	·	Kelly Down @ 1615 hr to a depth of 1337'b15.
		Chimide amcentration of mg/L @ 1337
		standed drilling this in toward @ 1645ha. (1337 to
	1337 - 1345	Tom to be colored; moderately in durated Linestone (voices from
TD 13685	•	a prak stone to a gramstone) for tome miner meants of poorly
KO-/33.		indurate Lit gray micrite: grain excrested echinodorm shells a fragment
, · • • • ·		w/ spormy cutile in-filling to interior of the perhandems (moderate to
		good pame by July
	1345-1350	Tan to it brown moderately to slighly well indurate in new time (
		puckstime to granstine - primarlya gramatine; contains echino deras
		infilled w/ spany aderie; contins mina monts of poorly indirated
		Lucest Contained Cond Decreeklity
	1720-1360	Tan to Li brown moderately indurated Line Stone (packs time)
		w/c few grainstone frequentical tuins minor Amounts of
		poorly inducate micrite (mothers), and echinodes or tragged and
		grain overexted whole schells.
	13 LO ~ 13 THR	"SAME AS Above"
٠		Kelly down to 1368.5 bls @ 1733 ha.
•		onlonde amce 1368.5 is mg/c.
		hast cotting for 1-14/-Py

ላይ . Kb .

## SOUTH FLORIDA WATER MANAGEMENT DISTRICT

# PROJECT LW-Floridum WELL NO. LZ-TW , DATE 1-18-94

, D	EPTH	DESCRIPTION - ROCK TYPE, COLOR, HARDNESS, OTHER
		Standed drilling @ 0835 @ a depth 13685 (outcorenite).
1368.5	- 1380	Lt Brown well indurated Lineatine (Breksterne) W/
		fragment of Lt Brown prackestone, very minor tossil fragment.
	• .	(good permeability due to Lock of mid natrix)
1380	- 1388-	Lt Brown to ton colored Kinnestone (wachestone) W/ Abordans
		volume of poorly inducated Lt. gray country micritic mud starting
		Q 1382 bis, and continuously to 1388 bis, minor volone of recrystalling
		shall fragment; No visible echinoid shells or fragments ( Low permeability
		good confinement within this in terual
1388	2981 -	Lt Brown colored moderately indivaded Limostane (wackstone to
10-0		profestore w/ minor valume of poorly indereded aniente in torresponsed
		through this in towal. ( moderate permeability due to micrite combat
1395	- 1400	Lt Brown well in durated Linestone (packstone) w/ fragment
		Lt Brown well in durated Linestone (packstone) ul fragment of null indurated packet pin-hale parisity development within
		tu rayo cutting fragments ( good permagbility due to Low Mice; le
		: good into ations)
		Kelly down to 0934 ha to a depth of 1400'
*		chlorite ence.
		stanted drilling next Interval @ 1010 hr.
1400	1404	11 Brown moderate to well indurated Mrestone (was lestine
		to packstone w/ pin-hole and small molder porceity usible
		contains minn amounts of Lt grow poorly indicate micrite; contains
		tew echinoid shell fragments (may be from above?) ( good permy b. ), be
1401	(- 1406	medium brown will inducted Linestone (puckstone to
-		graination ( sucrossic textore of Longe well in Lumbed fraggents
1406	~ 1414	
		intermixed or interlayer w/ Lt to medium gray dolostone fewer
		the Lt. brown Linestone has a succusic texture (good permeability)
1410	1-1419	Lt brows moderately indended himpsture (wackstone to packstone)
		visible bon-tale parasity of everusing textore, (good permentility
1-4		tem foliam colored moderally to well indurate Linesh
		( wasted to be for fare ) w/ min ambande clay autato  Lit brown modulately to well indonte Line stare ( packstar)  minor pinchole à moldie prosesty development ( good permouts lity

1429-1430 Lt gray well indurated Linestone (wackestone) wil few trag. ( ) well-indurate medium to dark dray delegation

## PROJECT LWC Florida WELL NO. LZ-TW DATE 1-18-84

	DEPTH	DESCRIPTION - ROCK TYPE, COLOR, HARDNESS, OTHER
	, gran F11	
, .	370 45-	Standed drilling this interval a his
40 1214	1930-1936	tan to crean colored moderately to well Advanded Greitare
ועו		wackestine to pack stone (colorenta) Minor tragant cloubles a surcersic
		textore ( 9 00d permentilety)
	1435-1438	L+ to medium brown. moderately to well indunded himston (pectostic)
		grades to a median brown toward 1438 (good permeability) NO.
		Visible fossils on fossil fragment.
	1438-1445	
-		packstone; (colements) minor pin-tule i moldic parosity development
		minor amount of well indurated gray dolostme, (good perm)
	1442-1448	I am to Lt gray moderately lanestme (wackestone) w/ 619 mitical
		smout of Lt gray; pourly indurated micrital for visible
,		fossil present. ( tow pormests ! Ly due to high meanite contain)
	1448- 1460	Lt brown to medium prouve ; well indurated herestre protestine
		to grainstone (entranenite) (very good permoability) depending
		on intergrain perpression to 1/1).
•		Kelly down @ 1215 ha to depthal 14625
		Chloride conc. 770mg/L @ 14625
•		Started to dr.11 Next in terral @ 1235 hr
KD 1335	1460-1465	Lit brown mo derately individed I mestone (wackstone to pucketine)
15 1417		minor proports of well inducted engetalling Lineating. This interces
		condains Approx 30 to 40 % Lt to medium gray poorly industed micrite
		(tow permisability) due to micrite contest.
	1465-1475	Light to medium grown passing well is dorated horselm of packating
		to grainstone) calcarente, ; sucrosic textore; well inducted
		crystallin Lineston on dest?) (good perments lity) minor pro-tall porisity
	1475- 1485	hight brown well indurated Limestine (perketine to grant time) released
		minor pin-hole porosity development. (quad pameability)
لعليق و:پس	14854 1489	medium gruy to Lt brown well indurated Limestine Corekstone to
		grainstare) releasantle; contains 10-15 to poorly in dowled micrite
		few by while micro fosiils - dictinconus trusicames and rounded spind form
	1489- 1490.	Donk chorolade Brown'poorly indicated, organic rich pealy
		day-self (possibley sub-nend proces - muon coil development
		Kelly down @ 1335 hr to a depth of 1493 bls. 20 Disconformity
		¿ Lake City Formation?

TD. 17251

PROJECT Luc Flor, da WELL NO. LZ-TW DATE 1/18/94

_		
	DEPTH	DESCRIPTION - ROCK TYPE, COLOR, HARDNESS, OTHER
	1490 - 1495	Tan to Lt Brown well indurated Limestine ( packstine to grain
		Stone minor pin-hole porosity development; tow fragment of
Γ		microcrystalling ten coloned Linestone, (quad permeability).
	4492-1500	
		granshe but includes profestone (cal orinte) very minor amount
		of white and is discilled movide few fragment of well to doroted
		dulc from to block dolostone minor pin-holo is possibly preventil
	1510-1510	1) brown well indurate Linest (packethe to granitate)
	1100 - 11	miras pin-Hale porasity development tow distyphemus America
ľ		presy. (good pumubil. Ly)
ŀ	1510 - 1515	"Some As Above"
ľ	1212-1250	Lt throws to Light gray rolored: well inducated Lines the (packstere
ļ	12.12-1250	to weekester) the gray fragments are well indurated do los time minar
ł		Dis how porosity development. ( good prometo lity).
	1220-1235	Sucrosic texture
		packstone) minor volume of Lt gray poorly interested microte
		(moderate permobility due to 106-18/2 micr/k)
yere		3)00.76 1000 171.7723
	1525-1535	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
		wadrost-ne primarly a culcurente) towns sucrosic textons in to professione
		(good germachility)
	1535-1546	medium brown well indurated Linestone (prekstore) calcurante
10-125°2	-	( smill cotting thoughout through this interval.) good permate but
	1240-1245	medium gray well inducated delostone; misor bit chatter
		@ this indused (module permetality)
	1542-1552	medin brown well industried Line (Store ( pack done) calculated princip sounds of proportion of the store of
		few frequent of nedwin gray delastic. (good permatility)
	1225-1222	
		bit ahather through this interval ( now premability)
		Kelly Houn P 1733 to a depth of 1556,5 613
		Stanted vert interval 1758 hrs. Drilled to 1575 b)s - mild a rod will contine
	1	an wednesdy to 14-Ay.

1532

## SOUTH FLORIDA WATER MANAGEMENT DISTRICT

PROJECT LWC Floridan WELL NO. LZ-TW DATE 1/19/94

	DEPTH	DESCRIPTION - ROCK TYPE, COLOR, HARDNESS, OTHER
	<u></u>	stanted next in toward @ 1755 ha on 1/18/94 drilled to -1575 bls
		on 15' oftend divilled Rod and Stopped @ 1834 has started to drill the
	•	remaining 15' @ 0840 an 1/19/94
	1222-1210	
		interlayed up 601 da yo 1100 crystalline calcite w/ minor Amounts
		of medium gray well indurated dulostone.
	1560-1570	Lt to motion brown; well indurated traistine (parkstime to possible
		grangetime (calcarenite) wil minor smound to postite to crem colore!
		investme (works the) into sporsed at the bottom of this internal.
		Dictyonianus Americanus Present w/ tais interval (450d pormes bility)
	1570-580	median Brown well indurated times time (puckesting to giam ofus)
		Culcumide we minor proport of orystalline calcide through this
		interval; pin-hole and mollic porosity divelopment
		Dictioncomes Americans present within this in towal (good pormability)
	1280-1282	Some as Above
		Kelly down @ 0907 ha to a deptr of 1588'
		Stated Newt interval @ 0940hr.
	1585-1595.	Lit grayin moderately to well indurated homestone (wasters he to
<u>к</u> р1617 Т № 1617	1	packster (w/ 30° 10 Lt to brownish yellow well indurated exstalling
1 12 14		Dalcile, interspersed through this interval (NO visible dictyunconus American
		present (small outling fragment (moderate to good permeab, ). Ly)
	195-1605	It gray well, indurated Lines Ine (packs time) calcarente. w/
.pA		25th - 3 Lt brown well inducted howsome envishelling to packetine)
<b>ገ</b> ቆዩ		(moderate to good permutility) no visible dictynocorus Americanos.
,, ,		
	1607-1615	median gray Louistone or delastone from 1605-1607 interval.  tem to cream colored moderately inducated Linestone (prekstone)
		(Colements); Larger cutting, frage, ( took drilling through this interval.)
		W) minor amounts of 2+ brown crystalline calcile frequent ( good present liky)
		Kelly down @ 1017 ha to a depth of 1617
	,	Stated drilling next interval @ 1841 hes.
KD 1125	1615-1025	it gray moduately industrated imedia (protes the to min growstu)
ŢĐ		(colorente) wife well sadvided must be wicked fragment) No visible
		dechypus species for other fossils. (good permeability de punday an induration pinnergian porm.
	1	induration intergrain perm.

## PROJECT LWC-Florida WELL NO. LZ-TW DATE 1-19-94

ſ	DERTH	DESCRIPTION DOCK TYPE COLOR HARDNESS OTHER
	DEPTH	DESCRIPTION - ROCK TYPE, COLOR, HARDNESS, OTHER
}	1625-1635	SAME AS Above"
ļ	1135-1640	it gray moderately is duraled himestope ( poststore)
		Colcorenite wi ten well indensed medium gray hirestone (pretistre)
]	a tyris risk	frequents, minor Amount of sporry : crystalline calcide. ( good
		permentality) NO visible fossils or fragments
	1640 - 1645.	
		padestone (relevanish). w/ few well in durate grayish-ton colore!
		frequents NO visible fossil as fossil tragger ( good perme whiting)
		mison promoted sparny or ensatelline calate.
		Helly down @ 1125 hs @ a depth 1648 bls.
		Started Next interval @ 1148has
	1645-1650	Lt gray in color well in durated himesty (puckestone) w/mina
		Amount of Lt brown crystalline calette fragment. About Dictynocoms Amer. a
	nerto	fauil stells : fragrants (moderate to good permoubility)
	1650- 1660	Ligray to In colone & moderately to well individed Linestone (primarly
		a prokesting w/ minor grainstage ) calculate this interval A/10 contains
رخهول		Dictyoneonos Americanos undafras fasil fragmentis shells ( a rod porno ability)
4253. The	1660 - 1670	In to L+ brown in color. my bradely to well industed times the Contisting
	7000 7010	
۵.		to grainstone (culconamite) w/ minor smount of Lt to me dim grow baristare or dolos hare. granular texture to the Langer cutting frequent (American Process)
(D-12411) 10=168 <sup>6</sup>		
		Note nicrofossils. (qood permeatellity).
	1620-1680	media to taked reg / best for to it brown moderately to well
		Interested Unested packstone to gramative (culcaracte) w/ visible
		p.n. hole and notice poros Ly Conkins a dank gray to black Layor of well
		lindurated Lingstone or adoptions from 1610-1611 DS Dictyrocones three constant
		Oter microfossi's present. (good permeability)
		Kelly down @ 1241 has to a depter 1680 bls.
		Stopped drilling @ 1253 ha to diem settling trulls and to allow
		the fines to coffle in L2 cmal.
		Stanted page interval Q. 1528 has.
אנטא וורו - פר	1 114 X UT 1/4 Y U	et to medium brown moderately to well in donated smeather
	• • • • • • • • • • • • • • • • • • • •	wacked to packatus, primaly ackeline w/stringer of well inducted
		modum to dute group I mostine or delogatione (2 1663-1685: 1688-1691/1) conducts Dictynocenus Amoricanos and other mero fossil (good permeat. 1.4)
	•	condums Dictynocionus Americans and often mero fossil (good permeat lity)
		<u>(29)</u>

PROJECT LWC Floriday WELL NO. LZ-TW DATE 1-19-14

	DEPTH	DESCRIPTION - ROCK TYPE, COLOR, HARDNESS, OTHER
ļ	1690-1695	median brown moderately inducated timestone, prokutone do
İ		grainstone (calceronite) w/ medicinto donk gray well indurated dolostne
	· · · · · · · · · · · · · · · · · · ·	Am 1693-1695' contin purhally dolomitized Dictyrogones and while.
		whole now defenitive & micro lossils (moderate to good permeable ty)
	1695-1700	median brown: moderately to well indurated hinestone (prokodine
ĺ		To grange (colsonande) w/ moderately indurated white to eran
		coloned packstone from 1698-1700 Dictioncomes Americans Present
	1000-1710	medium brown moderately to well indurated himes time (peckesting
		To grandere (calcopride) w/ 5 toger of well in doraled tan to cream
		color Linestone (on chest) con sharp consocial tracturing, wear to
		bose of this interval 1708-1710 bls (moderate to good promot lity)
		Kelly down @ 1622hato a depth of MII! bk. ( Present. American)
		Standard Nex - in ternal @ 1655 ha
	1710 - 1715	mod in brown in color; moderately indevaled Lines to (preks to)
KD:1752	r	calcarenite w/ to colored well indutated uncrooncrypo-crystalline
10-1141		Linestine eta bres al tris uniti Dictionemus Americanos present
		Low to moderate permoditily do pending a volume of completery talline
		Lirestne)
•	1715-1720	Lt brow to tem colored well indurated micro to crypto arystelling
		knestme w/ stringers of well in duraled pucks the. sme pin-hale in
		Nugay poposity development is micro-crystalling Lines ho. (Low
		permeability) possible amfini-, unit? dispunds on dissily of the
		protyrocomes primines preser. (Acid test on Lines the frequents) slow drilling
	1720-030	Lt brown to the color moderably to well inducted Linerthe
		prekstme w stringer of well inducted crypto-crystalline Linestere
•	<u>.</u>	Dictyonionys Americanas Prognor: few shork teets. (moderate permerbility)
	1730 - 1740	Sumo As Above
		Kelly down @ 1752 hr to depth of 1741 bls.
		Stopped discharge @ 1812 hrs.
	I	

(P-1001

## SOUTH FLORIDA WATER MANAGEMENT DISTRICT

PROJECT LWC Floride WELL NO. 12-TW DATE 1-20-94

, F	stabelly , 17	15' Ditchatter @1700 Ditcheffer @ 1764
	DEPTH	DESCRIPTION - ROCK TYPE, COLOR, HARDNESS, OTHER
1	<del>340</del>	Started drilling this interval @ 0856 hr.
4	740- nys	medium gray very wellindorated Lorestone ( wackstone to packstone
_		w/ minor Amount ten tolk brown wellindvaked warkestone dictyrocure
-	, Supply .	present in this introd (moderate to good permonts. I. Ly)
* 1	745-1750	Lt gray to Lt brown well indurated bymesters (wackasters)
		w/ pin-hole : Voggy porosity mainor mounts of moderately
-		in medium promo grainstre; Aboudent dictynoconus present. (moderate
		per memble by)
7.	750-1760	Tan to median brown no desitely indurated Linester (packating
		to grainstone ) we strager of well inducated for weeks from that
		show pin-holes slighly vuggy perocity development; Doundary
		Dictynoconus Anoricanos present. (good porno bility)
z	760-765	For to Lt brown well in durate Lines time (wack she to pucksting)
8	12 chafter @1760	w/ minor amount of crystelline colorde, pin-hole a vuggy porosity
'n	164	development; Dictyrainus Priesicanis Abordat within this in bruf to
7	765-1770	medium brown; moderately indurated Lines the (packatus to grainst
		will to redian gray well indurated Limethe (packstone) from
		1768-1770; Dictyrocus American Present minor Amental dark gray
		delostine @ base (moderile permoability).
		Kelly down 1001 hr to dipth of 1772
		studed next interval @ 1023 pm.
1	דרדו - סרד	I'm to Lt Brownish gray moderately in durate Lines time (grains time)
, pm	· · · · · · · · · · · · · · · · · · ·	wi minor amounts of Lt to relim gray fine grained dolostone (?)
740 -		Abundant dictyroconus Americana ( good permentility)
	777- 1780	medium to dank gray well industed fine gramed dalastre
02		w) a voggy textore. Looks like qui action on dissolving or reteling delostre
_		w/ medium proum (mastine packatine to grains) Dict ynocus American Aburdent
_		moderate to Low germab. 1. Li)
	1780-1790	tan to high Brown moderataly inducate Girestine (occinisting)
	litchellae	w/ minor propert well indonated wacks true is do los true: About
_		Dictyragores Americans & present ( good to very good permeat. 1. Ly)?
7	790-1800	some As Above "w/ mina Amount of yellow Cyclem coloned mystell
- 1		relate

PROJECT LWC Florida WELL NO. LZ-TW DATE 1-20-14

1	Sign. (. B	CQ (80C-1707
	. DEPTH	DESCRIPTION ROCK TYPE, COLOR, HARDNESS, OTHER
		Stanfold drilling this informal O 1150 hrs.
೯೬ ನಿವ	1800-1812	Tam to Hight Brown moderated to well indurated Linesten
भ्रष्टश कर		grainstone or culcurenite out minor amounts of well indunted.
	5.7 %	median gray dolosting stringers the range piece of Linestine display
		a grainy texture (suc minor pin-hele porosity development (good perm)
	1812-1814	tem colored well inducated Louistine (packetone) to minor granche
	- · · · · · · · · · · · · · · · · · · ·	(medium to good permeability) Dicty nocconos present.
	1814-\$ 1820	LA to medium brown well indurated Linestone (packstone to Boundstone)
		minor presents of Lt to median gray well indurated delosting
	,	Abundant Dictyrocomus as the Allochemis (moderate to good perroa 6.1. Ly)
	1220-1832	Tun colored, moderately to well indurated himetine (grainstine
		bound sine ) advancaite minor amount of he group well indurated
		dolos los in tais interval Dictynoconus, abundant through this interval
		moderate to good permostility depending on intergrainefermostality).
	1832 -1833.	modim to donk gray well indocated (very hand - bit chafter through
	····	this interval  . dolostone - did not renet w/ 50% Acid
		(Very Low permeability)
		Kelly down@ 1303 to a depty of 1834' -
•		Stufed DERT INGROD 1430 hRs.
KD-1618	1833- 1835	Tun colored, well indocated Lymes the (grainstone) w/ minor powers
18- 18FC		of medum group fine grained well inducated delasting pictyanions
		Americans procent. (moderate permetoisty)
	1835-1837	medium gray well in durated fine grained dolostine; hard
		drilling a this interval check geophysical Logs for well indurated rock
		unite his depth (did not react W/ 80% Acid 5010. ; could this be
		neat cement in fall?) (Low permochel by)
	1837 - 1840	medium Brown moderately indunted Linestone (grainstone)
		Westringer of well indoneted median gray delasting despersed through this
	ļ	interval ( hard bit aboller e intervals) Dictyroconco Americanos passent perm.
	1840-1844	The Lo Light Brown moderately to well in durated Longston (grainstrue
		to board stone; pin-hale & moldic possibly; Abandut Dr Lynoconus
		try me tre myon Mocheme ( 900 d permentility)
	140/ 1-4	

very hard- Slow dr. Homy 1856

1866

PROJECT LWC Ploside WELL NO. 12-TW DATE 1-70-94

<del>, ,</del>	
DEPTH	DESCRIPTION - ROCK TYPE, COLOR, HARDNESS, OTHER
1844-1846-	medium gray well indurated dolostone; did not reached
	Acid) Very Low permedo. I by (check geophysical bogs)
1846-1856	Am Lo Light Brown moderate to well inducated himestane,
	grandens' w/ minor pin-hole porosily Ass Dictyrocone froster
	Abundant in this intervale ( good permant. ), by main my dolostine?
1856 - 1859	.
	60 cracic textere anystalline dolorante (very Low permeubility)
1859-1865	ton to light Brown moderatoly to well inducated Linestine
	(grandue + colcarenite) minor amount of poorly in decade d white
	micrite Abondent Dictyroconos Amer (good pareability)
	Kelly down @ 1618ha ten depth of 1866
	Stated part indered @ 1650 hr.
1865-1870	Tom to light group moderate to well indurated Lorestie I wastest to
	grainetie) are moldic or vuggy porceity the botten of the interved
	is Third grained Louistine (weekstie) Dictyrocomus present (About
	in vaken portin (moderate permostility)
1870-1875	tun to med in brown motorafe to well indurated huardans
	(packstne to grainstate) w/ stringer of well indurated madin
	gray doloctore (chart?) from 1873-1875' Dectyronus Abridad
	in granstee in terval; major +11ocher (mobiles permostriby)
1875-1885.	Liter to higher gray well indurated Linestone (grainstone)
	(calculate) minor smound of white poorly indocated mice the
	Dictyroconis Americanis present. (9 60d permeab.). by)
1885-1895	"Shore as above" but light to radius brown in color.
	Kelly down 1257 1758 has to dipola of 1897. bls.
	end of Day 1-20-94.

PROJECT LUC Plorida WELL NO. 12-TW DATE 1-	-21-94

	. DEPTH	DESCRIPTION - ROCK TYPE, COLOR, HARDNESS, OTHER
		Stanfed drilling this interval @ 0845 hr. 1-24-94
34,2	1895-1900	et to medining Brown well indurated Lymostine (grainistane)
, , ,		Calcaramide. The major of the Allochene are Dictyrocomes shells i fragmen
	ે અફ્રિક્ટર	minor Amount of poorly industed while to Lt group micrise
		(moderale to prood parmobility) Dictyraciones Americanus Abundant
	1900 - 1905	Jan to Light Brown well indurated Lineston (packs has to
		grainstone (primarly grainstone) Abundant Dictyrocomus Present
		(good permability)
	1905-1915	Im de nedim brown mellindonted housdone (packstore to
1	Bit chaten P 1904 1906	granstne major allochen: Octyphycomos; well indurated
		ned in to druk gray do to 6 time inderval @ 1906 = 1914 bs - que
		(good permoubility) but tou permobility e doloste intervals
	1915-1928	In I me dien brown well indurated the Agrains to
		calconente Abondard dictynoconos present; major Allochen.
		(good primer/6, 1, ty)
ዺኤኖ		Kelly down @ 0545 to depth 12285
		shoted next 1 stored & 1017 ha.
	1925-7735	Tan to Light Brown moderately in durated Lines to (grains to
1317 1969	*	rulcarencies w/ minn montes of wickers for + pickethe) Dictyracionos
',-		Down don't major Allochen of grainstone, miner amont of median to
		duck gray Lines Ine stringer a time of internal (fact dilling) muderate
		Lo good permousility) several bit drops of several inches within this is ter
	1935 - 1945	
,		bit drop of soveral inches w/ this interest.
	1945 - 1955	pt .
	1955 -1960	Lt to redien brown, moderately to well inducate Grastine
	133	preksting to grainstine primarly a grainstine; returned dickyonconus.
		major ellochers; stringer of well indurated dark to rediving gray
		that? @ 1956 corresponding to bit obutter. (moderate to good parm)
16	,	Kelly down 1139 ha to depth of 1960'ble.
1973 148		Shaked Next interval @ 1202 4 a.
Ø+13 D+ 19	•	
- 1		

PROJECT LWC FLOrden WELL NO. L2-TW DATE 1-21-94

DEPTH	DESCRIPTION - ROCK TYPE, COLOR, HARDNESS, OTHER
1960-1970	LA to return frown, well indurated Linestone (Arcuinstone)
	calcorenite: w/ miror Amount of Lt gray well indurated timeste
	and poorly inducte white mirrite. Aboutant Dictynocurus; Major.
1.1.1.104	Mochen of greators love (good parmorbility)
1970-1980	SAME AS Above
1999 - 1980	Lt to medium brown, well inducated timestine (packstone to
<u></u>	grainstone w/ 10-15°/2 moderately indurated white mudistane to
	purchasting Aboudent Orctynousis major Allochem in to
	Lt La radion brown grinstne, min a smort of madion gray well
	Inducated dolusting (notat?) 1/2 stringer @ App. 1990 (moderate
	permeability) depends and waslesshe i modeline andat i do loss for
	Kolly down @ 1311 @ a depth of 1992' bis.
	PEKT INTERVAL Stanford BAPONR.
1990 -1995	Lt gray moderately to well in durated Linaston (walkestine)
	to packeture) w/ minor Amount of yellow-brown crystelline colorte
	fragments and medium array to dank gray well industred doloration
	or (clent) (does not reach all 50% Acid 50%) Distynocenes present but NOT
	in large worders (moderate permanbility
1995-2008	L+tol medium brown moderately to well indurated Linestone)
	grainstone - calcaracte ) w/ mi-on prouval of At to me dien group
	well indevaled dolostine and min vellowish from adoite fraguet Dretynoconer
	present some being belondticed ( good permeability)
2005-2010	Lt to median proup, moderale to well inducate & times to ( parks the
	to gram dene (colonomite) up mison frequent of it gray dolo stre; from
	2007-2010- Intergodded yellow-braun refere and dark gray to
	black dolostone well indurated). Dictyrocones present and large sombors.
2010-2020	Lt to redim brown moterately to well indured Lowston (granston
	this Lumine in Larger fragrants. 10 to 15% in the ded Lines has polaring
	this Luminal in Larger fragrants. 10 to 15% in to be did lines has politicing according to their black Laminatins, Minn sment of Linguist and industry
	delostine (moduale to good permeability)
	Kelly down @ 1453 to depth 2023 bis

KD. 145

## WELL DRILLER'S LOG

## SOUTH FLORIDA WATER MANAGEMENT DISTRICT

PROJECT LWC-Florida WELLNO. LZ-TW DATE 1-21-94

BC- 2035	BC = 2017 10= 1738 - 2053
DEPTH	DESCRIPTION - ROCK TYPE, COLOR, HARDNESS, OTHER
	Stated brilling this interval @ 1200 hr.
2020 -12025°	Tan to it Brown mideralely to well is durated himes that wackers the
	to packature some pin-hole parolity development: minan Amount.
	of orystalline Limester and dolostino ( medium group in colon) sure ungy por
	(Low permeability) Dictyrocenes Anarcones present.
2025-2030	time to modion prown well indurated times have ( packeylone to
<del></del>	grains the minor smounts of median gray; well industried delosting
	(dolombe) (good permodo, lity) bictyroconus person
2030-2035	Tom de Lit gray moderate to well indurated Lingstone ( wackcoping
·	to pocksture & slow drilling, high carbonate (morly) content)
	No Dichynounes present; (Low perment), by
2032-5000	Lt be medium brown moderale to well indurated Linguisme
	(grainstone) calcarenute; some pin-hole; uvagy porcovity; minor
	smounds of median to black brown dolomite (dolostee); Dictynocenson
b	Fresent; small in size; few in womber (good parmab. lity).
2040-2045	Some As Aboue, but has a dark to cholotake brown; well
<del> </del>	indurate dolomitàc Layen o 2044 bls Dictyrocomo present
· · · · · · · · · · · · · · · · · · ·	smill; few
5072-5020	you to be brown moderately indurate Linestone (packstuce
	La grainstone; contains minn amount of dunk to chocolife
·	derown dolombe @ Approx. 2048 bls dictynoconus Americanus present
	some veggy porosity in the delomate fragments.
	Kelly down 1738 ha to depth 2013
· · · · · · · · · · · · · · · · · · ·	End of Day 1-21-94.

PROJECT LWG- Florida WELL NO. LZ-TW DATE 1-24-94

		erll from 2060. 2065 Significant BCQ 2068 12. mins 2065. 2070 42min 2070-2070
	DEPTH	DESCRIPTION - ROCK TYPE, COLOR, HARDNESS, OTHER
•	7	Started drilling @ 0830 hr. 1-14-91 @ a depth of 2053 by
	2050-2057	Tom to Lt giray well indurated Linester (wackesting to
		packstone minor pro-hole porosity development; contain few thin.
-	. 1746/11 a	Lenningtin of dock black material within to Linguiting fow dictypoconus
		Americanus ray indrade the bace of "Lake City" - Avan Park formation
		(moderate permeability)
BASE of U.Florid	2057-2062	duk chocolate brown to black very well indurated dolomite (dolos to)
0.4.0	<del></del>	wy minor pro-hole porasity - The dolomite is crystalline to microcrystalline
		in textoop start indicules the base of the upper floridan Aquita
	•	No microfossils present. (very Lower Permandolity; base of upper
		Floridum Aquita) very slow drilling; significand bit chafter.
	2062-2070	Lit to median (chocotale) brown very well indurated anystalling to
		Microcrystelline dolomite, miner sucrosic texture visible in few
		fragments' minor pin-hole & veggy perosity development (very Low Unit)
		permentilty) crystal are subhederal - anterlegal. from 2068"
	2070- 2075	"SAME as Above" (slow dr. 11ing 34 min oks)
	2075. 2080	"SAME AS Above" "bust then Longer of well developed varys for porocity
		from 2019.2000 and displays of voggy texture within this interval.
		(Low permubility) contining unit (slow drilling 42 minotes)
	NOTE :	some curbonate fine to medium grained sands may be in felling voids of market
		whin to dolonide section? Tous maderial was present in the cottings
	·	settling tank After dulling through the About Section
	2080-2083	
		microcrystalline (MASSIVE) dolomite; some al dolomite fragment
		display very well developed voggy; Channel porasity
		suggesting dissolution within this zone minor sucrosic textone
		Anhederal dolomite orystallis may show high perm with - small sechi
		but generally Low permembeloly
		stopped drilling @ 1815ha to a depter 2084 bis did not
		traish this god.
	I	<u> </u>

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## SOUTH FLORIDA WATER MANAGEMENT DISTRICT

PROJECT LOW-Florden WELL NO. 12-TW DATE 1-25-94

40mins 2090-2095

40mias 20	90-205
. DEPTH	DESCRIPTION ROCK TYPE, COLOR, HARDNESS, OTHER
	stanted drilling @ 0945ha O a depth of 2083 bls.
	on 1-26.94 pto massive
2083-2080	
11 4	crystalline to microcrystalline dolonite (dolostono) minor
	Amount of vogay porosity; Alorg fractore or bedling plane
	fine Anhedral crystal growth inducating some fracture porceity
	and permerbility (Have samples to pertern thin sections) Low to
	very Low permeability depending on fractice concentration, NO
<b>м</b>	micro fossil content very slow drilling-significant bit whitey
	30 mins to drill through this interval
2090-2095	"SAME AS Above"
2095-2105	tan to medium brown; very well indurated thinly Luminute to
·	MASSINE time grained to microgy, talling do los tone (Dolomite) intertedied
	w/ chocolate' to dark proud well indurated median to fine grained
	crystalline dolos tone; no visible prosporat on vuggy porosity
	very tight rock unit (very Low porosity i permeability) microfossile
2105-2115	
:	Yolly down Q 1400 hr Lo a depth of 2115:5 bls.
	Chlorido concentratio 12, 860 mg/s.
<u> </u>	Shafed Next Rod @ 14_ha
ZHS- NOTE	3 carbanate fine to medium grained sands may be infilling so of
	the was channels in often void present in to dolos the section above.
	This referrich was found in the settling tents interspeed w/ to duloster
	fragments; Approx 15' of collespo nutricil upon changing dellod.
2115-	
	·
	P.*
· <del></del>	

PROJECT LUC FLORIDIM WELL NO. 12-+W DATE 1-27-94

DEPTH	DESCRIPTION - ROCK TYPE, COLOR, HARDNESS, OTHER
	Standed drilling @ OP30 hk @ a depth of 2145 bls
2115- 2120	Tam to dank brown were well indurated medium to microcry
	dolastone w/ some fragments of a parso grained sicrois dolomite
	displaying texted ( crystals' minor send fration composed
	of the described succession dolomote (very Low permoubility) minor
	Amount of from to white nodesately in durated Linestone the Linestone is
	giter thinky layer is fallow from above?
2120-2125	Let brown to donk (cholocule) brown) very well in durated median
	meno-or anytocystalline delastery; this intervalis compared preton
	of the milim grained orystalling dilostone we sme sucrosic doloni
	Traggeral within this interval minor sand fraction and white
	to crown colored moderately indunted Linestone send fragment (from above . )
2125 2132	Lt brown to medium brown ; very well industry; orygin to media
1 ' 1	grained organistic delostome " w/ some forgrant viciply a poorly
	identered - anherent to cobbedge 1 ory solut lived open (500,100 is)
	(very Low permeability)
2132 - 2137	
t	delastone; displaying some concluded fractoring tem fraget of
	medium gruned crystalline dolostin ( 4 to perneutituly)
	Inter bil sed Im to Light brown englance believ to microsys
	dolomite wistmaper of dark brown to black melin to course
	grained crystallite totostone display minor pin-point porcerty
	development minor stringer of fine to median graned continued
	sand tems (1/2 thick / 2137 & 2138') retorn to a well indoor
	Lt brown dolpstone towards the bose of this internal (Low permout)
2140 - 2145	Atm to Lt brown; very well industed fine to crypto ery talline
	doloslane the doloslar displays carchodial traptores and cotting me
<b>.</b>	thin should of dolontry very slow drilling through this internal
	from 2140 to 2147 drolling for money 1500 is 35 mins.
	(very Low promeablely) very tight interval
1	Kelly down P 1240ha Lua drehaw 2148 bls

117.3

PROJECT LUX FLOR . WELL NO. LZ-TW , DATE 1-27-44

47 mins L	drill 2155-2160 hast Fast tect 7min 1 mins 2160-2165
DEPTH	DESCRIPTION - ROCK TYPE, COLOR, HARDNESS, OTHER
	Studed drilling this interval @ 13 has
5142-5120	It brown very well indurated fire-grained dolostone wi
· •	minor amount of pin-point porceity develop (Slow drilling) very
	Low permandility
2150-2153	medium to Hark brown well industed fine to medium grains
<u>.                                    </u>	crystalline do lostens; medium to course grained subhedent to enhadro
·	dolowite crustels, minor pin-point, ungry porocity in to dark bown
	dolostone: (Low permability
2155- 2157	The to Lt brown very well indurated; fine to microcrystalling
	doloaters (very slow drilling through this interval (very Low
	porosity i porneability)
2157-2162	median to dark broad tag well indurated fine to medium gramed
	crystalline dolostene socrosic texture in some fraguents from 2160-2162
	Anhedral to sobhedral crystal. (Fast drilling / bow perneubility)
2162-5165	Lit product to cream colored moderately in donde Lines to (proteste
·	to wackestine ) w/ some poorly in durated micrite (productive) how
· <del></del>	to moderate permeability ( start of Lower Florida Agrifes.)
2165.2170	median brown; well indurated fine to redium grained constelline
	dolostane, good pin-hole & uuggy poroxity development; entedenl
	to subhederal dolo mite crystal display a sucrosic tentere.
· <u> </u>	(Low to moderate permeability)
2170-2175	Lt to don't brown ; well in duraled fine to redim grand crystalline
	dolorder w/ good pin-part & wasy porosity grades in to
	L+ brown moduately indurate dolaster toward the base of this interval
	w/ moderably inducated white to It gray Live it (postitione to
· · · · · · · · · · · · · · · · · · ·	wackerston) (Low to moderate perneub. I by) some what more successe
	tentone from 2172-2175 bis.
	Keller Low @ 1535 @ a depth of 2178
	Stated MEET interval @ 1623 has.
2175-2178	Lit gray moderately individed Linestone (weckester to prekister)
	no visible microfose of ( Low to moderate permon billity)
	no visible microfose of (in to moderate permon bility)

KD-1837ha. to dupte of 2 209

DEPTH	DESCRIPTION - ROCK TYPE, COLOR, HARDNESS, OTHER -
2178- 2185	
	reystalling: dolostone w/ good pin-point; vuggy porosity
	displays - magy textore ( moderate to good permochility depending.
	an tea voyay in bacconnections
2185-2190	medium brown to medium gray very well indurate fine grained
	crystalline dolastone; minor pin-point Eurogy porosity; tow thinly
	Lasaninched fragment of dolostory I very Slow drilling 30 minutes for this
	Milestel (Law permentility)
219.0-2192	It gray well indurated prestre (modeline to wackerfue) w/
	median to don't brown well industed fine to median grained
	median le dont brown vell indurated fire to median grained pin-Hole crystalline dolostre: some pin-point's vusqy porasidy development
2192 - 22%	L+ gray moderate to well indurated himstone (prekesting to
	to mackashie) w/ stringer of dark brown fire to redin gramed dobates
	and modim gray rellindonded trestone (poekstere) No Unible
	microfossil (moderate to good permostility)
2200-240	It gray moderately to well in surafed horostene (walkering do
	prekastone (releasenite) ( modernle to good permeability) No ousible
	Lossil frequents wino Around of poorly inducte micrite (mulbe)
· · · · · · · · · · · · · · · · · · ·	Kelly down 1837 to adopth of 2209.
	Studed pert rod Q 1900 hr.
2210 -	
	A.

Ko. 2008 ha TD= 27357 bls