

RPT-457:05

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Final Well Report

CANADIAN IMPERIAL ET AL

INDIAN HEAD #1

Prepared by

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- **Appendices**

- I. Geological Report on Canadian Imperial Venture Corp Indian Head #1 Harry's River Area *by Kristina Giles, Three-D GeoConsultants Limited*
- II. Wellsite Geologist Report (Core Logs)
- III. Geolograph and Gas Log
- IV. Legal Survey Plan *by Yates and Woods Ltd.*

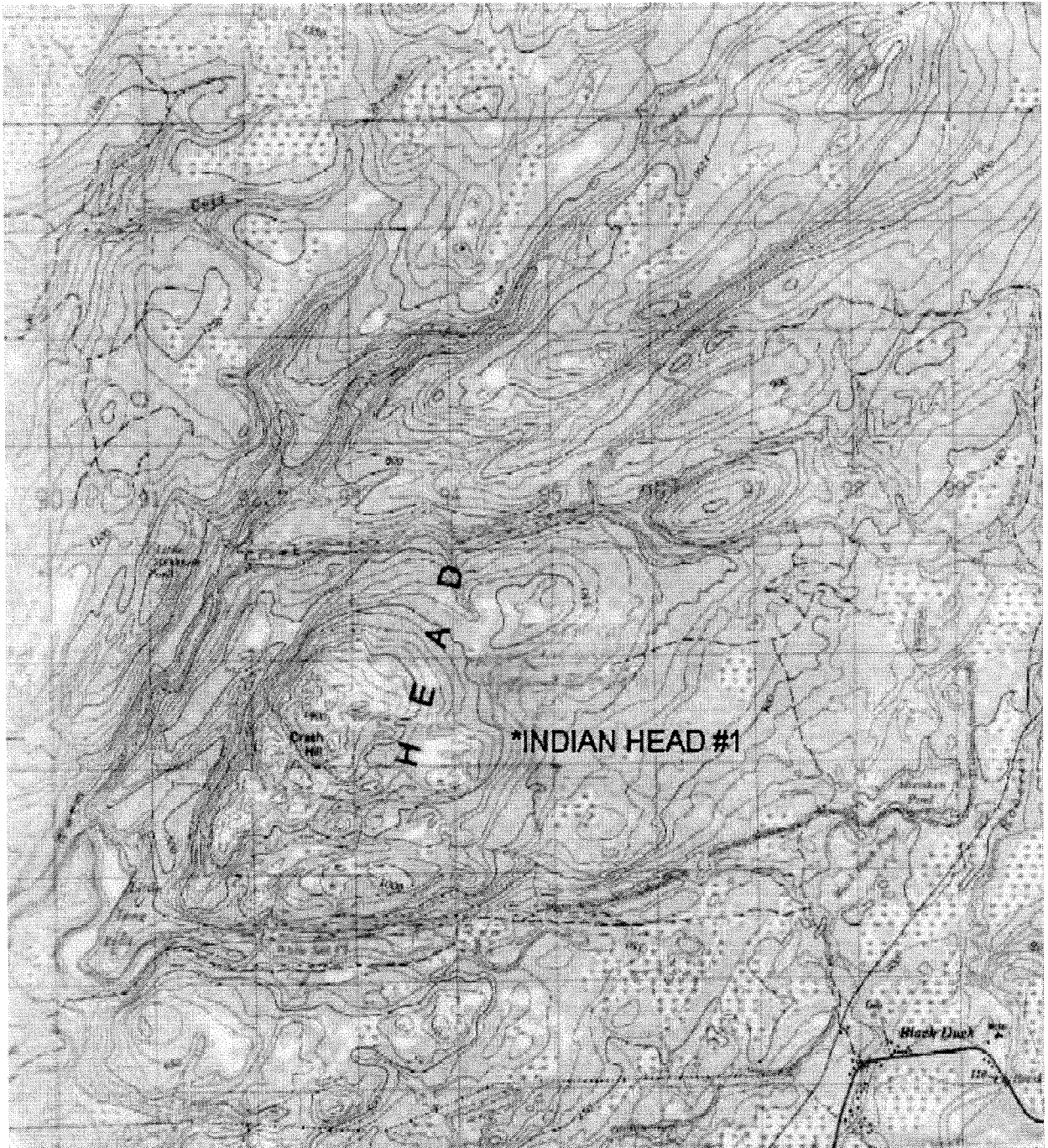
1. INTRODUCTION

1.1 Canadian Imperial et al Indian Head #1

The Indian Head #1 well was a rank wildcat to test for the presence of potentially hydrocarbon-bearing St. George's Group platform carbonates beneath the metamorphic rocks of the Indian Head Complex. Lithoprobe Line 12, a Vibroseis strike line approximately 4 km to the South of the well, suggested that the Indian Head Complex is an overthrust basement klippe overlying imbricate slices of Cambro-Ordovician carbonate platform sediments. The play is roughly analogous to Port au Port #1 where approximately 1,700 m of granite basement is encountered in an imbricate slice overlying the productive carbonates of the St. George's Group.

Indian Head #1 was drilled using a modified mining rig. The well was continuously cored from the base of the glacial overburden at approximately 14 m KB to total depth of 804.6 m KB. It was drilled entirely in Indian Head Complex metamorphics and none of the presumed underlying sediments had been encountered when drilling was concluded at 804.6 m.

1.2 MAP



1.3 General Information

1.3.1 Well Name

Canadian Imperial Venture Corp. et al Indian Head #1

1.3.2 Short Form Well Name

CIVC Indian Head #1

1.3.3 Operator

Canadian Imperial Venture Corp.

Financial Participant: Contact Exploration Inc., Calgary, Alberta

1.3.4 Drilling Contractor

Lantech Drilling Services Inc., Dieppe, NB

1.3.5 Drill Rig

LDS – Hydro “50” - Longyear 50 skid mounted diamond continuous coring drilling rig equipped with a 185HP diesel engine fitted with a spark arrestor, hydrostatic drive, insulated exhaust, pre-torque and breakout tool, 40’ derrick, hydraulic mud mixer, compartmentalized mud tank, Beam 435 mud pump and a 21,000 kPa BOP system.

1.3.6 Drilling Program Approval Number

2001-117-06

1.3.7 Authority to Drill a Well Number

2001-117-06-01

1.3.8 Well Location

The well site was located off a forest access road approximately 4,500 m NW of Black Duck (Highway 460 Stephenville to Trans Canada Highway).

Co-ordinates: Lat.: N48° 36' 08.345"
 Long: W58° 25' 34.764"
 NAD (27)
 N 5° 38.4' 011.84"
 E 39.4' 845.06"

Survey System: GPS and conventional land survey conducted by Yates and Woods Limited of Corner Brook, NL.

1.4 Difficulties and Delays

Significant time was lost drilling the surface hole due to sloughing of unconsolidated glacial overburden material into the hole. This problem cost in the order of eight days and required a number of cement jobs and an extra conductor casing string to stabilize the surface hole.

Rig operations were suspended from December 17, 2001 until January 3rd, 2002 for the Christmas Season.

2.0 DRILLING OPERATIONS

2.1 Elevations

Natural ground level: 237.80 m above MSL

Kelly Bushing: 3.65 m above natural ground level

2.2 Total Depth

Drilled Depth: 804.6 m KB

Logged Depth: N/A – Well was continuously cored. No wireline logs were run.

Plugged – Back Total Depth: Well was plugged – back to surface and abandoned.

2.3 Spud Date

1200 hrs (noon) December 5th, 2001

2.4 Date Drilling Completed

1930 hrs February 5th, 2002 (Note: Operations were suspended between December 17th, 2001 and January 3rd, 2002 for the Christmas holiday season.)

2.5 Rig Release Date

0600 hrs February 7th, 2002

2.6 Well Status

Abandoned. Well was temporarily suspended February 7th, 2002. Final abandonment program was conducted on June 28th, 2004.

2.7 Hole Sizes and Depths

311.15 mm to 8 m KB

139.7 mm to 28.9 m KB

122.6 mm to 244 m KB

96 mm to 804.6 m KB Total Depth

2.8 Bit Records

Notes:

1. Difficulties drilling the surface hole due to caving of glacial overburden required the use of a variety of bits, bit sizes and cement jobs until the 139.7 m surface casing was set at 28.9 m KB. Bit details were not recorded in drilling reports.
2. The hole section from the surface casing shoe (at 28.9 m KB) to the intermediate casing point (247.1 m KB) was continuously cored using 95 mm HQ diamond coring bits. This section was reamed out using a 122.6 mm PQ diamond coring bit.
3. The final hole section from the intermediate casing shoe (at 243.7 m KB) was continuously cored using 95 mm HQ coring bits.

Bit Record: Intermediate Hole Section (Note 2 above)

Bit No.	Diameter	Maker	Type	IADC code	Serial Number	Depths (m)
1	96 mm HQ	Fordia	Diamond Coring	9	20334-03	30.8 – 143
2	96 mm HQ	Fordia	Diamond Coring	9	20334-06	143 – 247
1	122.6 mm PQ	Fordia	Ream	9	20239-01	24 – 70
2	122.6 mm PQ	Fordia	Ream	9	20332-01	70 – 114
3	122.6 mm PQ	Fordia	Ream	9	0239-02	114 – 138
4	122.6 mm PQ	Fordia	Ream	9	720236-0	138 – 244

Bit Record: Final Hole Section (Note 3 above)

Bit No.	Diameter	Maker	Type	IADC code	Serial Number	Depths (m)
1	96 mm HQ	Fordia	Diamond Coring	9	20334-01	250.6 – 267
2	96 mm HQ	Fordia	Diamond Coring	9	20334-05	267 – 367.7
3	96 mm HQ	Fordia	Diamond Coring	9	20334-05	367.7 – 389.7
4	96 mm HQ	Fordia	Diamond Coring	9	20619-02	389.7 – 469.6
5	96 mm HQ	Fordia	Diamond Coring	9	20619-03	469.6 – 546.6
6	96 mm HQ	Fordia	Diamond Coring	9	20123-01	546.6 – 577.6
7	96 mm HQ	Fordia	Diamond Coring	9	N/A	577.6 – 676.6
8	96 mm HQ	Fordia	Diamond Coring	9	20619-04	676.6 – 746.6
9	96 mm HQ	Fordia	Diamond Coring	9	20333-02	746.6 – 804.6

2.9 Casing and Cementing Record

- a) Conductor - 8 m of 244.5 mm conductor barrel was cemented in place with 1.4 m³ of construction cement + 2% calcium chloride. Cement density 1900 kg/m³ was displaced with 0.2 m³ of water with good cement returns to surface.
- b) Surface Casing - 139.7 m PW casing was run to 28.9 m KB and cemented with 1.2 m³ of construction cement + 2% Calcium Chloride. Cement density 1200 kg/m³, good returns to surface.
- c) Intermediate Casing - 114.3 mm HW Casing was run to 243.75 m (81 points) and cemented with 1.0 m³ of class A + 12 litres CD-31L + -30% F1-63 + 1% R-6N mixed at 1879 kg/m³ and displaced with 2.0 m³ of fresh water.

2.10 Sidetracked Hole

There was no sidetracked hole.

2.11 Drilling Fluid

The surface hole (to 30 m) drilled using fresh water. The rest of the hole was drilled using a fresh water based polymer mud with the following characteristics:

30 m to 243.7 m:

Density: 100 to 1050 kg/m³

Viscosity: 28 to 40 sec/L

243.7 m to 804.6 m:

Density: 1010 to 1105 kg/m³

Viscosity: 30 to 55 sec/L

2.12 Fluid Disposal

No Fluids were disposed of downhole.

2.13 Fishing Operations

There were no fishing operations and no fish were left in the hole.

2.14 Well Kicks

There were no well kicks.

2.15 Formation Leak-off Tests

Test at 250 m KB (114.3 casing shoe at 243 KB) with fresh water – held steady at 3,000 kpa (Formation gradient of 22 kpa/m.)

2.16 Time Distribution

To be plotted

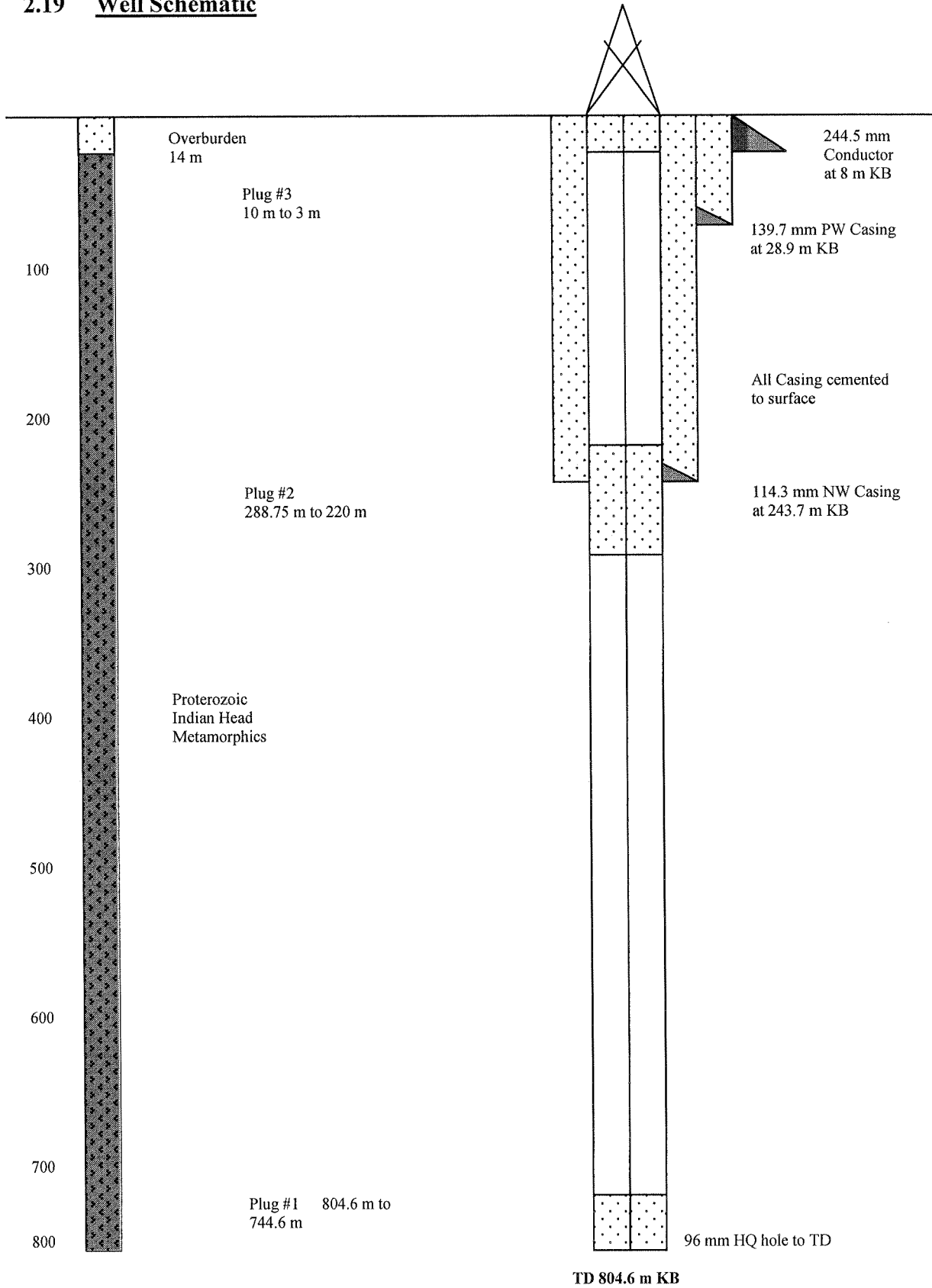
2.17 Deviation Plot

Only single shot surveys were done so no deviation plot could be computed. From surface to 661.6 m, the hole inclination was between 1° and 2°. From 691.6° to Total Depth at 804.6 m, the hole inclination was between 2.5° and 2.75°.

2.18 Abandoned / Suspension Plugs

- | | |
|---------|--|
| Plug #1 | 804.6 m – 744.6 m:
0.64 m ³ neat Portland cement displaced with 5.7 m ³ of drilling mud. |
| Plug #2 | 288.75 m – 220 m:
0.64 m ³ neat Portland cement displaced with 2.14 m ³ of drilling mud. Top of plug tagged at 220 m. |
| Plug #3 | 10 m – 3 m:
Neat Portland cement plus 3% volume clay. |

2.19 Well Schematic



2.20 Fluid Samples

No fluid samples were taken.

2.21 Composite Well Record

See Section 2.19

3. GEOLOGY

3.1 Drill Cuttings

The well was drilled using a modified mining diamond coring rig. No cuttings are produced by this method of drilling.

3.2 Cores

The well was continuously cored from the Conductor (at 9 m) to Total Depth (804.6 m). Core Recovery was in excess of 90%. The cores are temporarily stored at the Canadian Imperial Garden Hill site.

3.3 Lithology

Please see Appendix I

3.4 Stratigraphic Column

Please see Appendix II. Except for the glacial overburden down to 14 m DD, the well was drilled entirely in the Proterozoic Indian Head metamorphic complex.

3.5 Biostratigraphic Data

N/A

4. WELL EVALUATION

4.1 Downhole Logs

No logs were run. Based on an examination of the cores, the section penetrated by the well was seen to be entirely non-prospective for hydrocarbons.

4.2 Other Logs

N/A

4.3 Synthetic Seismograms

None

4.4 Vertical Seismic Profiles

None

4.5 Velocity Surveys

None

4.6 Formation Stimulation

None

4.7 Formation Flow Tests

None

5. OTHER

5.1 Mud Logger's Report

Please see Appendix III

5.2 Directional and Deviation Survey Report

None

5.3 Final Legal Survey Plan

Please see Appendix IV

5.4 Core Photos

None

5.5 Core Analysis Report

None

5.6 Fluid Analysis Report(s)

None

5.7 Oil, Gas Water Analysis Report(s)

None

5.8 Geochemical Report

None

5.9 Biostratigraphy Report

None

5.10 Petrological Report

None

5.11 Palynological Report

None

5.12 Paleontological Report

None

Geological Report

on

Canadian Imperial Venture Corp Indian Head #1 Harry's River Area

Well Reached Total Depth on
Feb 4, 2002 @ 18:00

(suspended)

for

Canadian Imperial Venture Corp

Prepared For: George Langdon
Canadian Imperial Venture Corp

Prepared By: Kristina Giles
Three-D GeoConsultants Limited

Kristina Giles

Sample Descriptions

Storage Units: Metric

0.00 to 14.00 (14.00)	Ovbdn 0 to 14: Overburden
14.00 to 67.90 (53.90)	Metamorphic 14 to 67.9: Indian Head Complex, medium grained quartzo feldspathic gneiss with foliation at 80 degrees to core axis, fractured, magnetite
67.90 to 68.40 (0.50)	Metamorphic 67.9 to 68.4: Indian Head Complex, as above but note gray aphanitic possible igneous intrusion, vertical contact, calcareous veins
68.40 to 90.80 (22.40)	Metamorphic 68.4 to 90.8: Indian Head Complex, medium to coarse grained quartzo feldspathic gneiss with foliation at 80 degrees to core axis, occasional grayish black aphanitic possible igneous features up to 0.30m thick (may also be mafic/ felsic mineral differentiation where no intrusive contacts visible)
90.80 to 112.80 (22.00)	Metamorphic 90.8 to 112.8: Indian Head Complex, similar to above but increasing indication of recrystallization with coarse fragments scattered throughout, generally fine grained with medium to coarse grained layers on medium scale, increase in feldspar content and felsic/ mafic differentiation, foliation may show augen textures, magnetite
112.80 to 113.30 (0.50)	Metamorphic 112.8 to 113.3: Indian Head Complex, grayish black aphanitic anorthosite, possible ancient igneous intrusion, horizontal contacts, xenolith visible
113.30 to 143.40 (30.10)	Metamorphic 113.3 to 143.4: Indian Head Complex, quartzo feldspathic gneiss as above gneissic zone but increased differentiation of felsics and mafics, foliation at 60 degrees to core axis, slight recrystallization and overprinting of gneissic fabric lessens below 132.8m
143.40 to 144.80 (1.40)	Metamorphic 143.4 to 144.8: Indian Head Complex, medium to coarse grained gray anorthosite recrystallized but minimal alteration, generally non- foliated
144.80 to 163.00 (18.20)	Metamorphic 144.8 to 163: Indian Head Complex, quartzo feldspathic gneiss, increased quartz, plagioclase and mafic layers on 1 to 0.50m scale, maximum 2m thick zone, grades into a felsic/ mafic differentiated zone, horizontal bands on cm scale, magnetite throughout
163.00 to 172.40 (9.40)	Metamorphic 163 to 172.4: Indian Head Complex, as above but plagioclase content increasing overall, occasional sub vertical fractures, foliation and banding variable from horizontal to 45 degrees to core axis, abundant thin quartz infilled fractures, note 3cm thick quartz vein at 45 degrees to core axis at 153.9m, note fractures at 45 degrees to core axis

Sample Descriptions

Storage Units: Metric

172.40 to 172.90 (0.50)	Metamorphic 172.4 to 172.9: Indian Head Complex, as above with alteration zone (chlorite epidote etc.)
172.90 to 193.00 (20.10)	Metamorphic 172.9 to 193: Indian Head Complex, as above without the alteration
193.00 to 206.30 (13.30)	Metamorphic 193 to 206.3: Indian Head Complex, possible ancient brecciated zone, highly recrystallized with very coarse grained subrounded clasts, possible serpentinized sections, greenish gray clay alteration and minor red clay altern in thin cm scale bands, recommend another look at this section
206.30 to 217.00 (10.70)	Metamorphic 206.3 to 217: Indian Head Complex, quartzo feldspathic gneiss with increase in feldspar content, thicker differentiated layers up to 1m thick, felsic zones are crystalline and may be overprinted, otherwise abundant foliation and metamorphic structures visible throughout
217.00 to 245.00 (28.00)	Metamorphic 217 to 245: Indian Head Complex, quartzo feldspathic gneiss with increased mafic content (magnetite rich), banded with felsic and mafic layers, recrystallized and foliated gneissic zones layered on 2m scale
245.00 to 246.90 (1.90)	Metamorphic 245 to 246.9: Indian Head Complex, gray aphanitic anorthosite(?), possible intrusive igneous feature, occasional crystalline bands up to 2cm thick
246.90 to 277.00 (30.10)	Metamorphic 246.9 to 277: Indian Head Complex, quartzo feldspathic gneiss with increased plagioclase content (magnetite rich), increased foliation at 60 degrees to core axis (bands up to 1cm thick), differential felsic/ mafic banding on 1m scale, mafic (and magnetite) content increases toward base of zone
277.00 to 295.80 (18.80)	Metamorphic 277 to 295.8: Indian Head Complex, as above with increased plagioclase, quartz and mafic content, horizontal layering on 1cm scale, medium grained recrystallized alteration zones (fine grained overall) on 10 to 20cm scale to foliated gneissic zones layered on 2m scale
295.80 to 312.00 (16.20)	Metamorphic 295.8 to 312: Indian Head Complex, as above with increasing feldspar content, possible hematite alteration, crystalline zones less abundant, foliation ~ horizontal but increases to 70 degrees to core axis
312.00 to 352.00 (40.00)	Metamorphic 312 to 352: Indian Head Complex, quartzo feldspathic gneiss with layers of medium grained feldspar rich zones on 1m scale, abundant thin calcite infilled fractures variable from sub vertical to 60 degrees to core axis increasing down zone, note 5mm thick calcite infilled fractures at 60 degrees to core axis at 342.6m and 342.8m

Sample Descriptions

Storage Units:

Metric

352.00 to 366.50 (14.50)	Metamorphic 352 to 366.5: Indian Head Complex, quartzo felspathic but foliation highly overprinted and crystalline, abundant calcareous infilled fractures
366.50 to 443.00 (76.50)	Metamorphic 366.5 to 443: Indian Head Complex, quartzo felspathic gneiss, increased differentiation and banding of felsics and mafics on 1m scale, foliation variable from ~ horizontal to 45 degrees to core axis
443.00 to 452.00 (9.00)	Metamorphic 443 to 452: Indian Head Complex, as above with increased plagioclase content, foliation more consistently at 45 degrees to core axis
452.00 to 467.90 (15.90)	Metamorphic 452 to 467.9: Indian Head Complex, quartzo feldspathic, gneissic foliation almost completely masked by recrystallization, no differential banding
467.90 to 486.80 (18.90)	Metamorphic 467.9 to 486.8: Indian Head Complex, quartzo felspathic gneiss, still some overprinting of foliation by recrystallization, occasional differentiated felsic/ mafic banding, occasional sub vertical fractures, increasing plagioclase content down zone
486.80 to 489.20 (2.40)	Metamorphic 486.8 to 489.2: Indian Head Complex, highly recrystallized anorthosite, possible ancient intrusive igneous feature (dyke?)
489.30 to 493.00 (3.70)	Metamorphic 489.3 to 493: Indian Head Complex, quartzo felspathic gneiss, highly recrystallized
493.00 to 495.80 (2.80)	Metamorphic 493 to 495.8: Indian Head Complex, gray aphanitic, possible fine faint horizontal laminations (may be due to coring) and vesicular indicating a volcanic nature, also possible plagioclase phenocrysts, abundant calcite infilled fractures, upper contact at 45 degrees to core axis
495.80 to 497.00 (1.20)	Metamorphic 495.8 to 497: Indian Head Complex, very fine grained feldspar rich recrystallized zone, abundant calcite infilled fractures
497.00 to 502.70 (5.70)	Metamorphic 497 to 502.7: Indian Head Complex, gray aphanitic, possible ancient intrusive igneous feature to 498m with gneiss interlayered below
502.70 to 523.50 (20.80)	Metamorphic 502.7 to 523.5: Indian Head Complex, quartzo feldspathic gneiss, horizontal foliation, crystalline zones layered with gneissic zones on 2m scale, feldspar content variable, mafics may contain chromite (note feature at 514.6m)

Sample Descriptions

Storage Units:

Metric

523.50 to 534.30 (10.80)	Metamorphic 523.5 to 534.3: Indian Head Complex, anorthostic gneiss, horizontal foliation, still fractures at 45 degrees to core axis and occasional calcite infilled fractures, contacts at 45 degrees to core axis, fine faint horizontal laminations, note highly crystalline zone at 528.5m as feldspar content increases, layering on 1m scale (feldspar -rich to plagioclase rich zones)
534.60 to 536.60 (2.00)	Metamorphic 534.6 to 536.6: Indian Head Complex, as above with increased alteration mineralization, highly crystalline zone at 535.6m, zones on 0.5 to 1m scale, calcareous, (SAMPLE IH1-01 at 535.6m)
536.60 to 538.90 (2.30)	Metamorphic 536.6 to 538.9: Indian Head Complex, grayish white fine grained highly calcareous crystalline quartzite, minimal differentiation and banding, generally massive, very fine grained from 536.9 to 537.3m and from 538.4m, (SECTION SAMPLED, IH1-02 at 536.2m, IH1-03 at 536.8m, IH1-04 at 537.5m, IH1-05 at 538.3m)
538.90 to 541.20 (2.30)	Metamorphic 538.9 to 541.2m: Indian Head Complex, highly altered zone (chlorite epidote etc.), (SECTION SAMPLED, IH1-06 at 538.9m, IH1-07 at 539.5m, IH1-08 at 539.7m, IH1-09 @540.3m, IH1-10 at 540.4m)
541.20 to 548.50 (7.30)	Metamorphic 541.2 to 548.5: Indian Head Complex, very fine grained anorthosite and gneiss, layered felsic and mafic bands, interlayered altered crystalline bands
548.50 to 556.40 (7.90)	Metamorphic 548.5 to 556.4: Indian Head Complex, layered very fine grained anorthosite and gneiss with less alteration, anorthosite sections are faintly banded on mm to cm scale as above, contacts at 45 degrees to core axis, possible ancient intrusive igneous feature, note chlorite epidote infilled fractures at 553m
556.40 to 556.80 (0.40)	Metamorphic 556.4 to 556.8: Indian Head Complex, gray anorthosite, possible remnant igneous feature, calcite infilled fractures oriented at 45 degrees to core axis like upper and lower contacts, fractures dominantly vertical but occasionally random, fine faint horizontal laminations, note similar to sections above
556.80 to 574.70 (17.90)	Metamorphic 556.8 to 574.7: Indian Head Complex, anorthosite and gneiss, differentiated felsic/ mafic gneissic and crystalline zones grading into highly feldspathic zones with possible hematite alteration, foliation increases to 45 degrees to core axis, 1m plagioclase rich zones in 6m intervals, calcite infilled fractures, minimal alteration, magnetite throughout
574.70 to 577.00 (2.30)	Metamorphic 574.7 to 577: Indian Head Complex, as above with increased alteration (chlorite, epidote) in gneissic zone, magnetite

Sample Descriptions

Storage Units: Metric

577.00 to 595.60 (18.60)	Metamorphic 577 to 595.6: Indian Head Complex, anorthosite and gneiss, differentiated felsic/ mafic gneissic and crystalline zones grading into highly felspathic zones with possible hematite alteration, foliation increases to 45 degrees to core axis, 1m plagioclase rich zones in 6m intervals, calcite infilled fractures, minimal alteration, magnetite throughout
595.60 to 601.10 (5.50)	Metamorphic 595.6 to 601.1: Indian Head Complex, grayish black to reddish pink fine grained gneiss, differentiated felsic/ mafic layering on 1m scale, foliation variable from 80 to 60 degrees to core axis, magnetite rich, calcareous, occasional sub vertical mm scale fractures, note chlorite and epidote alteration zone from 598.3 to 598.6m
601.10 to 611.00 (9.90)	Metamorphic 601.1 to 611: Indian Head Complex, fine grained grayish black anorthosite, occasional foliation visible similar to above section, magnetite rich, calcareous, rare sub vertical mm scale fractures
611.00 to 612.00 (1.00)	Metamorphic 611 to 612: Indian Head Complex, fine grained grayish black anorthosite, sub vertical mm scale fractures upper 0.5m, calcareous, magnetite rich
612.00 to 614.90 (2.90)	Metamorphic 612 to 614.9: Indian Head Complex, layered felsic/ mafic zones on 0.02 to 0.04m scale at 50 degrees to core axis, magnetite rich, calcareous, note basal 0.20m medium to coarse grained crystalline
614.90 to 625.50 (10.60)	Metamorphic 614.9 to 625.5: Indian Head Complex, very fine grained anorthosite, grayish black mafic layers with occasional reddish pink felsic zones on cm scale with maximum 15cm thick bands, magnetite rich, calcareous, rare medium to coarse grained 0.02m scale crystalline layers overprinting gneissic texture, fractures at 45 degrees as above, note chlorite epidote alteration from 616.6 to 617.2m, note the next 27m may have abundant ancient intrusive igneous features
625.50 to 628.50 (3.00)	Metamorphic 625.5 to 628.5: Indian Head Complex, as above, banded at 60 degrees to core axis with cm scale plagioclase and calcite rich layers with alteration to chlorite and epidote, calcite infilled fractures upper 0.40m, magnetite, calcareous
628.50 to 633.60 (5.10)	Metamorphic 628.5 to 633.6: Indian Head Complex, as above, layered with felsic and possibly reddish pink hematite altered on 1.5: 0.40m scale, calcite infilled fractures up to 2mm thick at 45 degrees to core axis, magnetite, calcareous
633.60 to 637.60 (4.00)	Metamorphic 633.6 to 637.6: Indian Head Complex, as above with minimal layering of plagioclase and calcite rich spotty bands, increased alteration zones on 1m scale, occasional calcite infilled fractures, increase magnetite and mafic content, decrd feldspar content, calcareous

Sample Descriptions

Storage Units:

Metric

637.60 to 647.90 (10.30)	Metamorphic 637.6 to 647.9: Indian Head Complex, fine to medium grained grayish to black anorthosite as above with feldspar content increasing at 442.6m, felsic possible hematite altered fresh pink layers on 0.50 to 1m scale, occasional spotty foliation visible at 70 degrees to core axis, magnetite, calcareous
647.90 to 652.00 (4.10)	Metamorphic 647.9 to 652: Indian Head Complex, gneissic foliation, felsic and mafic layered zones, possible hematite and chlorite epidote alteration scattered throughout, magnetite rich, calcareous, rare fractures
652.00 to 658.80 (6.80)	Metamorphic 652 to 658.8: Indian Head Complex, fine grained grayish to black anorthosite, generally non foliated with minimal differential layering of plagioclase and calcite rich spotty bands, abundant sub vertical calcite infilled fractures, increased magnetite and mafic content, calcareous
658.80 to 665.00 (6.20)	Metamorphic 658.8 to 665: Indian Head Complex, as above with increased layering and faint foliation with felsic (possible with hematite alteration) zones on 5m scale, abundant sub vertical fractures, core very broken from 660m, magnetite, calcareous
665.00 to 686.40 (21.40)	Metamorphic 665 to 686.4: Indian Head Complex, gray aphanitic texture, possible ancient mafic igneous feature (dyke?), calcite and quartz infilled fractures, possible thin horizontal layering, note possible vesicles and plagioclase phenocrysts at 685.6m, pristine partial melting feature at base
686.40 to 700.00 (13.60)	Metamorphic 686.4 to 700: Indian Head Complex, very fine grained anorthosite (?), plagioclase and feldspar rich layering with mafic rich zones at 60 to 70 degrees to core axis, generally non foliated but faint gneissic foliation in some layers (possible overprinting by recrystallization), fractures at 45 degrees to core axis, possible remnant igneous intrusive features throughout this section
700.00 to 703.40 (3.40)	Metamorphic 700 to 703.4: Indian Head Complex, black aphanitic texture, mafic rich, possible intrusive contacts, more recent igneous feature (dyke?), abundant calcite infilled fractures
703.40 to 711.80 (8.40)	Metamorphic 703.4 to 711.8: Indian Head Complex, differentiated feldspathic and mafic bands with gneissic foliation at 80 degrees to core axis and increasing to 45 degrees, possible hematite alteration, note odd possibly intrusive contact at 705.8m
711.80 to 719.00 (7.20)	Metamorphic 711.8 to 719: Indian Head Complex, very fine grained to aphanitic grayish black, possible ancient igneous feature (dyke?), differential plagioclase and mafic banding on cm scale from 716m, feldspar content increases toward base

Sample Descriptions

Storage Units: Metric

719.00 to 729.60 (10.60)	Metamorphic 719 to 729.6: Indian Head Complex, quartzo feldspathic gneiss, gneissic foliation at 60 to 45 degrees to core axis with occasional differential banding, coarsening to medium grained more crystalline zones with faint gneissic foliation (possible overprinting)
729.60 to 748.00 (18.40)	Metamorphic 729.6 to 748: Indian Head Complex, as above with increased frequency and thickness of differential felsic and mafic zones (10s of cm rather than cm scale banding), note felsic zones may have hematite alteration from 746 to 748m
748.00 to 755.70 (7.70)	Metamorphic 748 to 755.7: Indian Head Complex, anorthositic crystalline (overprinting) and gneissic zones, plagioclase shows some secondary alteration mineralization to chlorite epidote, possible ancient mafic igneous feature (dyke?)
755.70 to 761.00 (5.30)	Metamorphic 755.7 to 761: Indian Head Complex, as above layered on 3m scale with very fine grained feldspathic zones with rare foliation
761.00 to 781.00 (20.00)	Metamorphic 761 to 781: Indian Head Complex, as above up to 1m thick zones layered with 2m feldspathic zones, mafic content decreasing, note chlorite epidote infilled sub vert fractures from 778.5 to 781m
781.00 to 793.00 (12.00)	Metamorphic 781 to 793: Indian Head Complex, similar to above but with interlayred gneissic and crystalline textures at 60 to 45 degrees to core axis on 1m scale with feldspathic zones
793.00 to 804.00 (11.00)	Metamorphic 793 to 804 TOTAL DEPTH: Indian Head Complex, quartzo feldspathic gneiss with decreasing feldspar content and minimal banding, foliation at 70 to 50 degrees to core axis, plagioclase content increasing toward base of zone

Well Information

Operator: Canadian Imperial Venture Corp

Well Name: Canadian Imperial Venture Corp Indian Head #1

Location: Harry's River Area

UWI: 2001-117-06-01

Pool: Exploration

Field: Exploration

Province / State: Newfoundland

Country: Canada

Elevations

Reference: _____ Ground: _____ m

Cut(-) / Fill(+): _____ Kelly Bushing: _____ m

K.B. to Ground: 6.1 m Casing Flange: _____ m

Total Depth

Measurement Type	Measured Depth	True Vertical Depth
Drillers TD (Tally)	m	m
Drillers TD (Strap or SLM)	m	804 m
Loggers TD	m	m

(Suspended Feb 1/02)

Surface Co - Ordinates

Well Type: Straight Longitude: _____ Latitude: _____

N / S Co - Ordinates: 5 384 011.84

E / W Co - Ordinates: 0 394 845.06

Bottom Hole Co - Ordinates

Longitude: _____ Latitude: _____

N / S Co - Ordinates: _____

E / W Co - Ordinates: _____

Drilling Fluid Summary

Fluid Type	From	To

Casing Summary

Type	Hole Size	Casing Size	Landed At
Conductor	mm	mm	30 m
Surface	mm	mm	225 m

Well Summary

Spud Date: Dec 4, 2001 Contractor: Lantech Drilling Services

TD Date: Feb 4, 2002 Rig Release Date: _____

Work Schedule

Contractor	Geologist	Log Interval	Dates Logged
Three-D GeoConsultants Limited	Kristina Giles	0 m - 30 m	Dec 5, 2001 - Dec 21, 2001
Three-D GeoConsultants Ltd	Kristina Giles	30 m - 804 m	Jan 3, 2002 - Feb 9, 2002

Remarks

Note: Drilling suspended in the Indian Head Complex at 804m

No logs run

Legend

Rock Types and Thin Beds						
Whole Bed	Stringer	Nodule	Breccia	Clast	Pebble Grain	Rock Type
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Anhydrite - primary
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Anhydrite - secondary
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Argillite
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Barite
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Bentonite
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Breccia
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Calcareous
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Cement
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Conglomerate - mixed
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Conglomerate - dark chert
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Conglomerate - light chert
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Conglomerate - varicolored chert
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Chert - dark
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Chert - fossiliferous
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Chert - light
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Chert - tripolitic
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Chert - varicolored
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Claystone - colored
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Claystone - gray
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Coal
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Dolomite
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Ferruginous
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Feldspar
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Gypsum
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Igneous - acidic
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Igneous - basic
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Igneous - metamorphic
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Limestone - grain supported
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Limestone - mud supported
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Manganese
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Marlstone - calcareous
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Marlstone - dolomitic
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Phosphate
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Pyrite
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Quartz
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Salt
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Shale - black
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Shale - medium gray
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Shale - light gray
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Shale - light to medium gray
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Shale - light to dark gray
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Shale - light colored
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Shale - light to dark colored
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Shale - dark gray
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Shale - medium to dark gray
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Shale - dark colored
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Shale - light to medium colored
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Shale - medium to dark colored
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Shale - medium colored
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Siderite
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Sandstone
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Siltstone
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Till - glacial
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Volcanic (Tuff)
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	Welded Volcanic (Tuff)

Accessories			
[Symbol]	Anhydritic	[Symbol]	Gibbsitic
[Symbol]	Argillaceous	[Symbol]	Illitic
[Symbol]	Baritic	[Symbol]	Kaolinitic
[Symbol]	Bentonitic	[Symbol]	Lithic Fragment
[Symbol]	Bituminous	[Symbol]	Marly - calcareous
[Symbol]	Calcareous	[Symbol]	Marly - dolomitic
[Symbol]	Carbonaceous	[Symbol]	Micromicaceous
[Symbol]	Cherty - dark	[Symbol]	Mixed layer clayey
[Symbol]	Cherty - fossiliferous	[Symbol]	Montmorillonitic
[Symbol]	Cherty - light	[Symbol]	Phosphate pellets
[Symbol]	Cherty - tripolitic	[Symbol]	Pyritic
[Symbol]	Cherty - varicolored	[Symbol]	Salt casts
[Symbol]	Chloritic	[Symbol]	Sandy
[Symbol]	Clayey	[Symbol]	Sideritic
[Symbol]	Dolomitic	[Symbol]	Siliceous
[Symbol]	Ferruginous staining	[Symbol]	Silty
[Symbol]	Fractures	[Symbol]	Stylocitic
[Symbol]	Glauconitic	[Symbol]	Tuffaceous
[Symbol]	Gypsiferous	[Symbol]	Zeolitic

Fossils (Rock Builders)			
[Symbol]	Aggregate grains	[Symbol]	Euryamphipora
[Symbol]	Algae - laminations	[Symbol]	Foraminifera
[Symbol]	Algae - non descript	[Symbol]	Fossil
[Symbol]	Algae - octoid	[Symbol]	Fragmental
[Symbol]	Algae - skeletal	[Symbol]	Gastropod
[Symbol]	Amphipora	[Symbol]	Graptolite
[Symbol]	Belemnite	[Symbol]	Hydrozoa
[Symbol]	Bioclastic	[Symbol]	Intraclast
[Symbol]	Brachiopod	[Symbol]	Mollusc
[Symbol]	Bryozoa	[Symbol]	Oncolite
[Symbol]	Calciphaera	[Symbol]	Oolite
[Symbol]	Cephalopod	[Symbol]	Ostracod
[Symbol]	Chaetetes	[Symbol]	Pelecypod
[Symbol]	Coated grain	[Symbol]	Pellet
[Symbol]	Conodont	[Symbol]	Pisolite
[Symbol]	Coral	[Symbol]	Plant Remains
[Symbol]	Coral - branching	[Symbol]	Scaphopod
[Symbol]	Coral - head	[Symbol]	Spicule
[Symbol]	Coral - colonial	[Symbol]	Sponge
[Symbol]	Coral - solitary	[Symbol]	Stromatoporoid
[Symbol]	Crinoid	[Symbol]	Stromatoporoid - bulbous
[Symbol]	Diatom	[Symbol]	Stromatoporoid - massive
[Symbol]	Echnoid	[Symbol]	Stromatoporoid - tabular
[Symbol]	Echnoid - spine	[Symbol]	Tentaculites
[Symbol]	Fish Remains	[Symbol]	Trilobite

Miscellaneous Grains			
[Symbol]	Biotite	[Symbol]	Mineral crystal
[Symbol]	Glauconite	[Symbol]	Mineral - dark
[Symbol]	Mica flakes	[Symbol]	Muscovite
[Symbol]		[Symbol]	Orthoclase
[Symbol]		[Symbol]	Plagioclase
[Symbol]		[Symbol]	Sand grain

Textures			
[Symbol]	Chelky	[Symbol]	Earthy
[Symbol]	Cryptocrystalline	[Symbol]	Lithographic
[Symbol]		[Symbol]	Microcrystalline
[Symbol]		[Symbol]	Slickenside

Matrix			
[Symbol]	Argillaceous	[Symbol]	Marl - dolomitic
[Symbol]	Bentonite	[Symbol]	Micrite
[Symbol]	Bituminous	[Symbol]	Mixed Clay
[Symbol]	Clay	[Symbol]	Montmorillonite
[Symbol]	Chlorite	[Symbol]	Sand
[Symbol]	Gibbsite	[Symbol]	Silt
[Symbol]	Illite	[Symbol]	Sparry Calcite
[Symbol]	Kaolinite	[Symbol]	Zeolite
[Symbol]	Marl - calcareous	[Symbol]	

Porosity Type Track	
⊖	Earthy - low permeability - crystals / grains less than 1 / 16 mm
⊖	Fenestral - voids from gas bubbles - shrinkage cracks - birdseye texture
F	Fracture
X	Intercrystalline - Interfragmatal - Intergranular
⊖	Interoolitic - Interpelletoidal
J	Moldic
⊖	Organic - Bridged - Intrafossil
P	Pinpoint - voids less than 1/ 16 mm
V	Vuggy - voids greater than 1 / 16 mm

Oil Show Track	
●	Even staining (75 - 100% of the rock is stained) - fluoresces in solvent
○	Spotted staining (50 - 75% of the rock is stained) - fluoresces in solvent
⊖	Spotted staining (25 - 50% of the rock is stained) - fluoresces in solvent
⊖	Spotted staining (1 - 25% of the rock is stained) - fluoresces in solvent
○	Questionable oil staining - No fluorescents in solvent
D	Dead oil staining - asphaltic - bitumen - pyrobitumen etc.
F	Fluoresces - no visible oil staining

Diagenesis Track	
⊖	Calcification - Calichified
⊖	Dolomitization
⊖	Diagenetically mottled
⊖	Fracturing
⊖	Leaching
⊖	Metasomatism - Replacement - Allotropic recrystallization - Inversion - Transformation
Pd	Pressure Deformation
Rx	Recrystallization - Strain recrystallization - Grain growth
⊖	Silicification
⊖	Solution cavity filled - Geopetal structure
⊖	Stylolitic
W	Weathering Degree of Diagenesis is in (%) percent. ? Indicates questionable interpretation.

Wentworth Grain / Crystall Size Scale Chart				
Clastic Rocks	Crystalline Rocks	Lower Size	Upper Size	Size Grades
Common Name	Common Name	Limit (mm)	Limit (mm)	Phi (Ø)
Clay	Cryptocrystalline	0.00098	0.004	+10 to +9
Very Fine Silt	Very Finely Microcrystalline	0.004	0.008	+8
Fine Silt	Finely Microcrystalline	0.008	0.016	+7
Medium Silt	Medium Microcrystalline	0.016	0.031	+6
Coarse Silt	Coarsely Microcrystalline	0.031	0.0625	+5
Very Fine Sand	Very Finely Crystalline	0.0625	0.125	+4
Fine Sand	Finely Crystalline	0.125	0.25	+3
Medium Sand	Medium Crystalline	0.25	0.5	+2
Coarse Sand	Coarsely Crystalline	0.5	1.0	+1
Very Coarse Sand	Finely Megacrystalline	1.0	2.0	0
Granules	Coarsely Megacrystalline	2.0	4.0	-1
Fine Pebbles		4.0	8.0	-2
Medium pebbles		8.0	16.0	-3
Coarse Pebbles		16.0	32.0	-4
Very Coarse pebbles		32.0	64.0	-5
Cobbles		64.0	256.0	-6 to -7
Boulders		256.0	Infinity	-8 to -9

The size measure Phi is equal to the negative logarithm to the base 2 of the size in millimeters.
Thus 1 mm = 0 Phi and 1/2 mm = +1 Phi and 1/4 mm = +2 Phi etc.

Cement			
⊖	Anhydritic	⊖	Gypsiferous
⊖	Baritic	⊖	Hematitic
⊖	Bituminous	⊖	Limonic
⊖	Calcareous	⊖	Pyritic
⊖	Chert - dark	⊖	Salt
⊖	Chert - light	⊖	Sideritic
⊖	Dolomitic	⊖	Siliceous
⊖	Ferruginous		

Sorting Track	
vP	Very poorly sorted - > 10 phi size grade classes
P	Poorly sorted - 8-10 phi size grade classes
M	Moderately sorted - 3-6 phi size grade classes
mW	Moderately well sorted - 2-3 phi size grade classes
W	Well sorted - < 2 phi size grade classes

Rounding Track			
vA	Very Angular	r	Subrounded
A	Angular	R	Rounded
a	Subangular	wR	Well Rounded

Framework Track	
Framework is a ratio between clastic material greater than 1/16 mm and primary void filler less than 1/16 mm. ? indicates questionable interpretation	

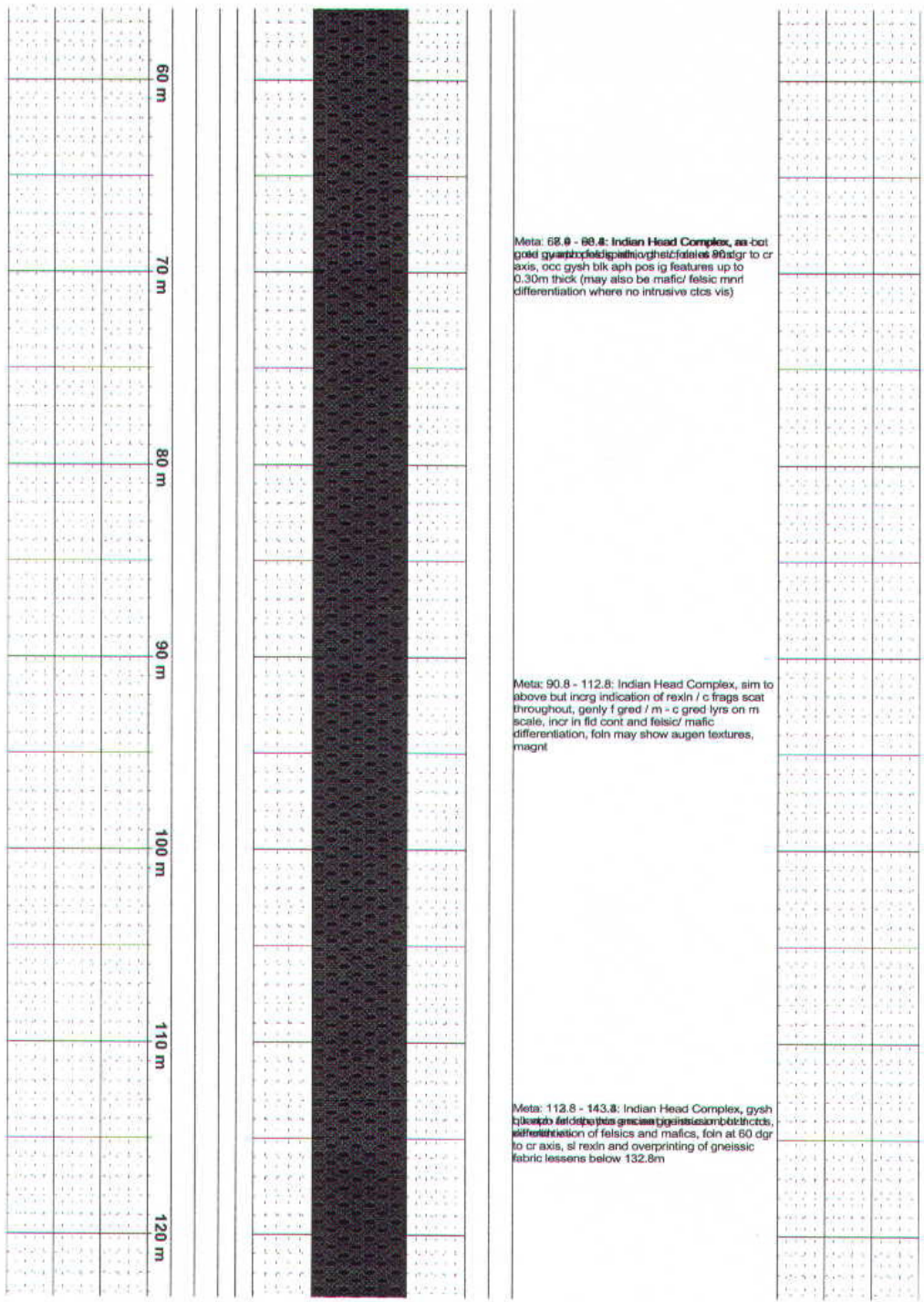
Core Track	
■	Indicates Cored Interval
□	Indicates Lost Core

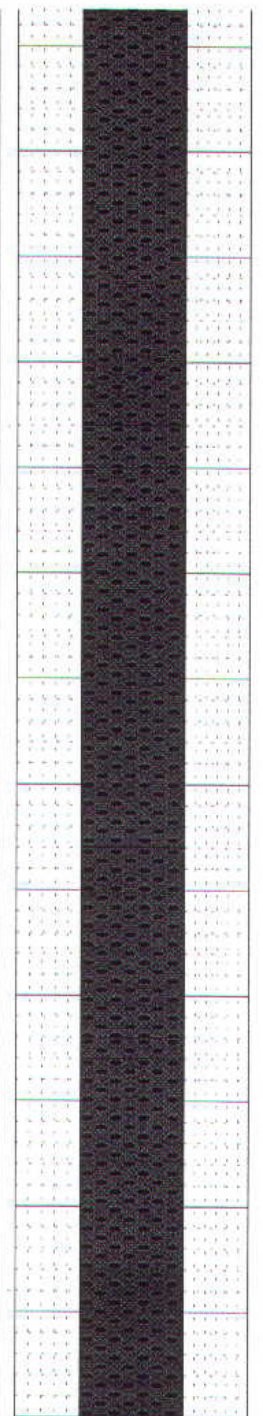
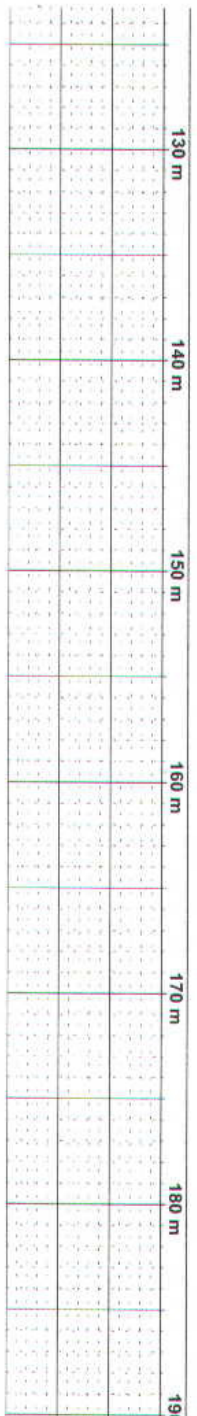
Test Track	
■	Indicates Tested Interval

Canstrat/Amstrat Grain Size Scale Chart				
Clastic Rocks	Lower Size	Upper Size	Size Grades	
Common Name	Limit (mm)	Limit (mm)	Phi (Ø)	
Silt (Lower)	0.0039	0.0312	+8 to +7	
Silt (Upper)	0.0312	0.0625	+6 to +5	
Very Fine Sand (Lower)	0.0625	0.0937	+4.5	
Very Fine Sand (Upper)	0.0937	0.125	+4	
Fine Sand (Lower)	0.125	0.187	+3.5	
Fine Sand (Upper)	0.187	0.25	+3	
Medium Sand (Lower)	0.25	0.375	+2.5	
Medium Sand (Upper)	0.375	0.5	+2	
Coarse Sand (Lower)	0.5	0.75	+1.5	
Coarse Sand (Upper)	.75	1.0	+1	
Very Coarse Sand (Lower)	1.0	1.5	+0.5	
Very Coarse Sand (Upper)	1.5	2.0	0	

The size measure Phi is equal to the negative logarithm to the base 2 of the size in millimeters.
Thus 1 mm = 0 Phi and 1/2 mm = +1 Phi and 1/4 mm = +2 Phi etc.

Drilling Progress	Formation Tops (Short Name)				Core	Porosity Type	Porosity (%)	Oil Shows	Interpreted Lithology	Grain Size (mm)	Rounding	Sorting	Lithology Description	Curve						
	Measured Depth												Gamma Ray (gapi)				Density Porosity (V/V)			
	TG (Total Gas) (%)	Drill Rate (min/m)											0	50	100	150	0	25	50	75
0	5	10	15	0	5	10	15	20	5	10	15	20	0	25	50	75	100			
													Ovbdn: 0 - 14; Ovrbdn							
													Meta: 14 - 67.9: Indian Head Complex, m gred quartzo felspathic gneiss / foln at 80 dgr to cr axis, fracd, magnf							
				10 m																
				20 m																
				30 m																
				40 m																
				50 m																





Meta: 143.4 - 144.8: Indian Head Complex, m - c
gred gy anorth rexld but mint altn, genly non- fol

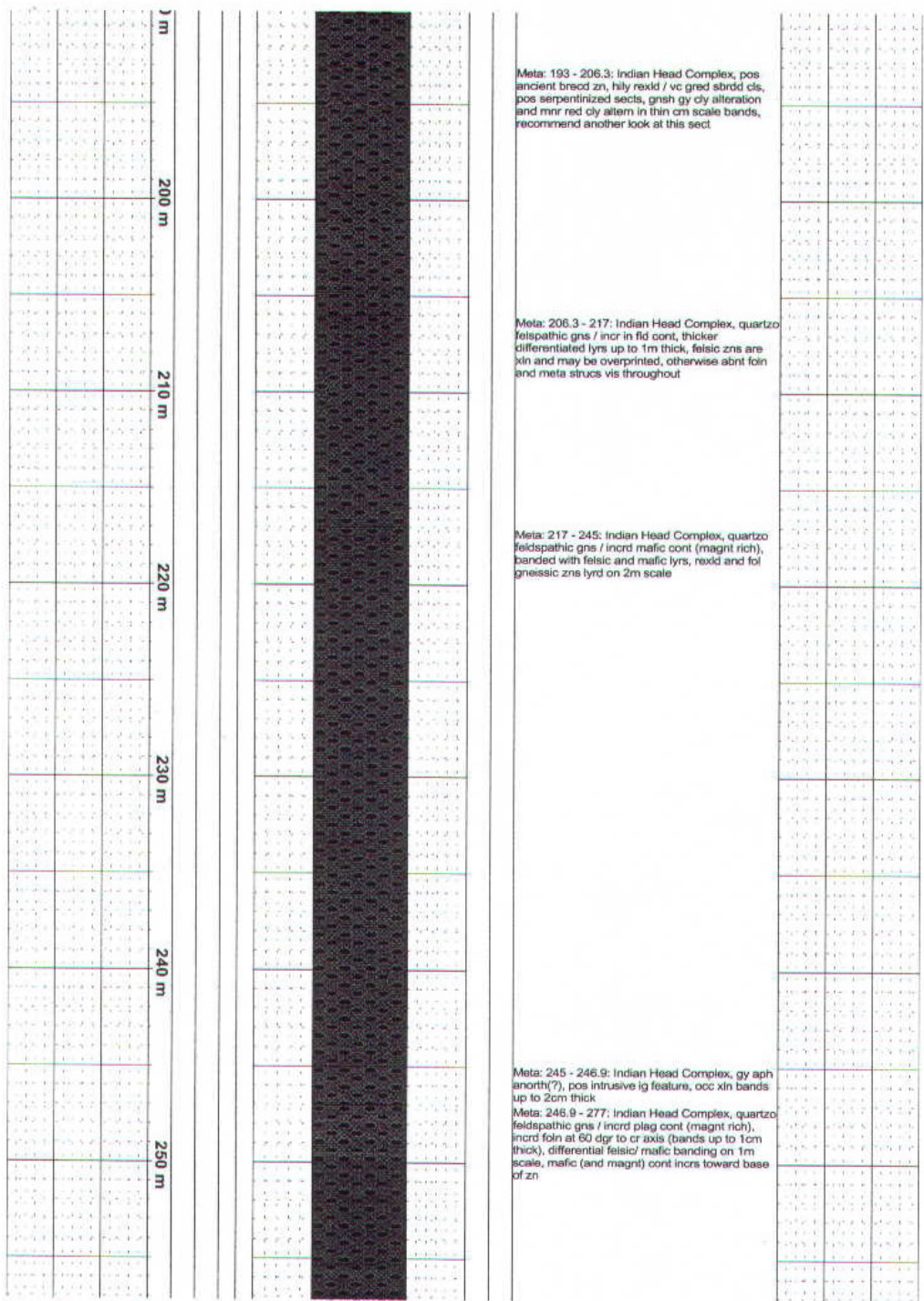
Meta: 144.8 - 163: Indian Head Complex, quartzo
felspathic gns, incrd Qtz, plag and mafic lyrs on 1
- 0.50m scale, max 2m thick zn, grds into a
felsic/ mafic differentiated zn, hztl bands on cm
scale, magnt throughout

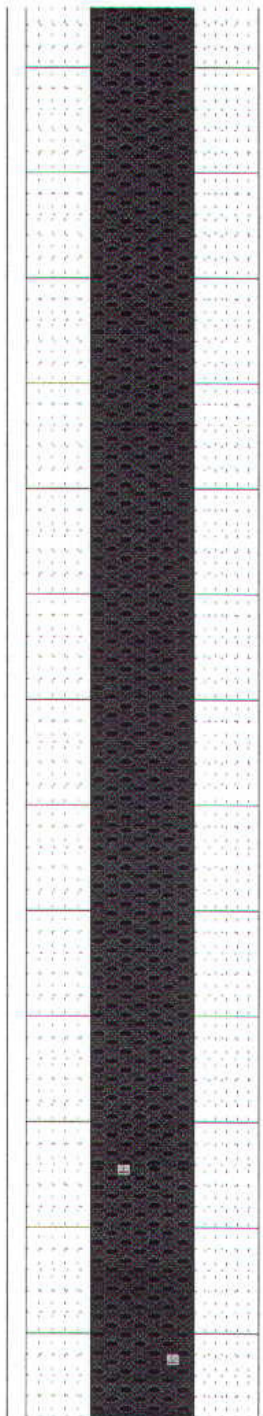
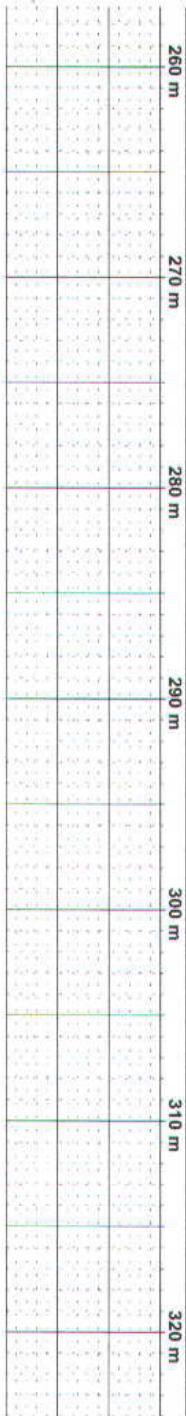
Meta: 163 - 172.4: Indian Head Complex, aa but
plag cont incrg overall, occ sub vrtl fracs, foln and
banding var from hztl to 45 dgr to cr axis, abnt
thin Qtz infiled fracs, note 3cm thick Qtz vein at
45 dgr to cr axis @ 153.9m, note fracs at 45 dgr
to cr axis

Meta: 172.4 - 172.9: Indian Head Complex, aa /
altn zn (chlor epi etc.)

Meta: 172.9 - 193: Indian Head Complex, aa wo
the altn





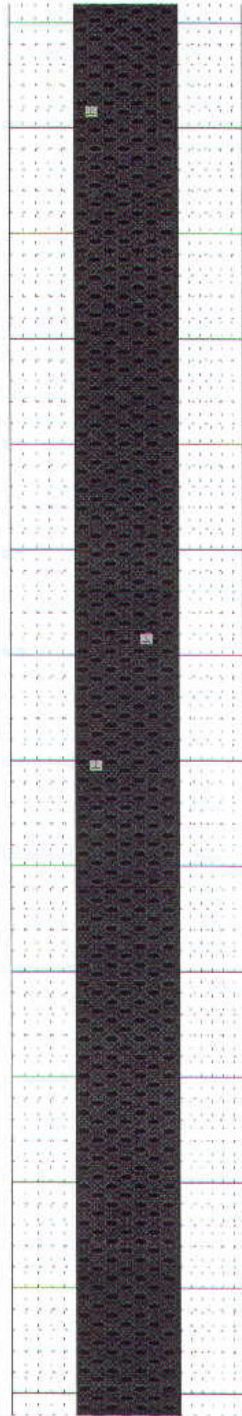
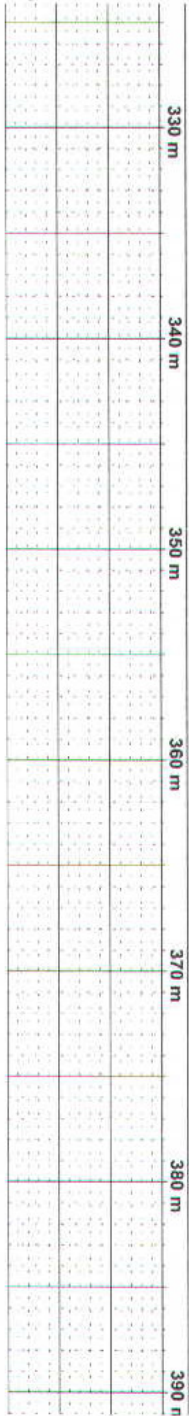


Meta: 277 - 295.8: Indian Head Complex, as /
 inchr plag, qtz and mafic cont. hztl lyrg on 1cm
 scale, m gred rextld altn zns (f gred overall) on 10
 - 20cm scale to fol gneissic zns lyrd on 2m scale

Meta: 295.8 - 312: Indian Head Complex, as /
 inchr fld cont, pos hem altn, xtn zns less abnt,
 foln ~ hztl but incls to 70 dgr to cr axis

Meta: 312 - 352: Indian Head Complex, quartzo
 feldspathic gns / lyrs of m gred fld rich zns on 1m
 scale, abnt thin calc infilled fracs var from sub vrtl
 to 60 dgr to cr axis inchr down zn, note 5mm
 thick calc infilled fracs at 60 dgr to cr axis @
 342.6m and 342.8m

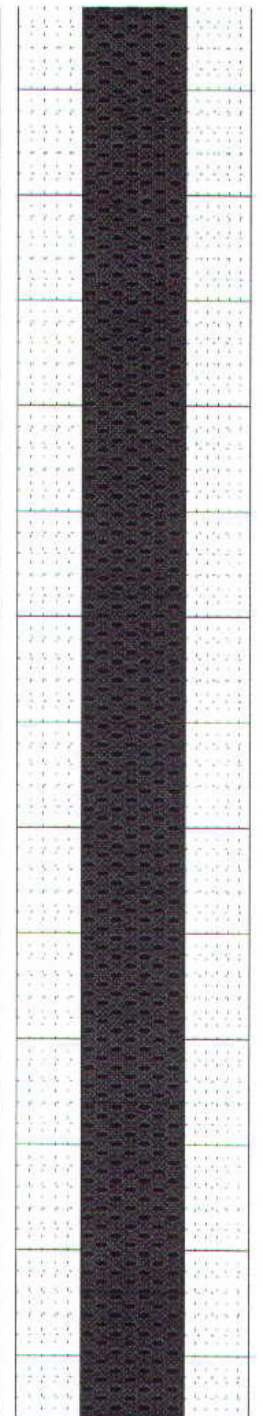
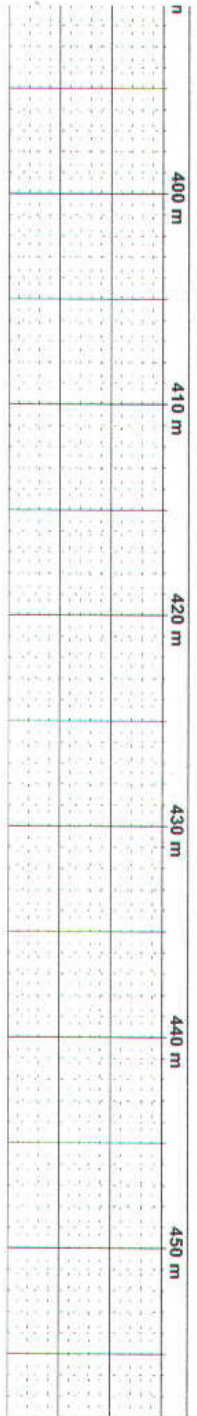




Meta: 352 - 366.5: Indian Head Complex, quartzo-felspathic but foln hly overprinted and xln, abnt calcs infilled fracs

Meta: 366.5 - 443: Indian Head Complex, quartzo-felspathic gns, incrd differentiation and banding of felsics and mafics on 1m scale, foln var from - hzt! - 45 dgr to cr axis



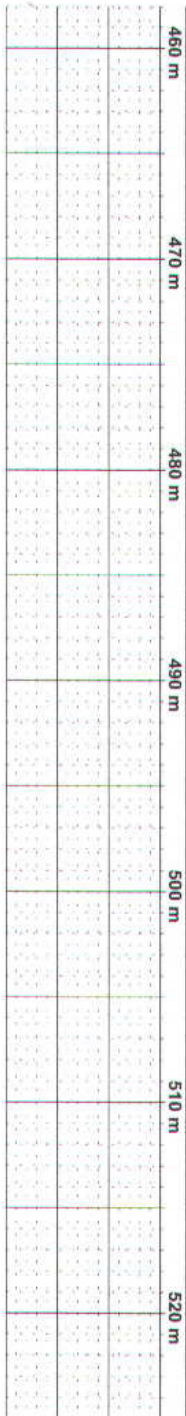


Meta: 366.5 - 443: Indian Head Complex, quartzo-
feldspathic gns, incrd differentiation and banding of
felsics and mafics on 1m scale, foln var from -
hztl - 45 dgr to cr axis

Meta: 443 - 452: Indian Head Complex, aa / incrd
plag cont, foln more consistently at 45 dgr to cr
axis

Meta: 452 - 487.9: Indian Head Complex, quartzo-
feldspathic, gneissic foln almost completely
masked by rexin, no differential banding





Meta: 467.9 - 486.8: Indian Head Complex, quartzo felspathic gns, still some overprinting of foln by rexin, occ differentiated felsic/ mafic banding, occ sub vrtl fracs, incrg plag cont down zn

Meta: 486.8 - 489.2: Indian Head Complex, hily rexid anorthosite, pos ancient intrusive ig feature (dyke?)

Meta: 489.3 - 493: Indian Head Complex, quartzo felspathic gns, hily rexid

Meta: 493 - 495.8: Indian Head Complex, gy aph, pos f frnt hztl lams (may be dur to coring) and ves indicating a volcanic nature, also pos plag phenocrysts, abnt calc infilled fracs, u cto @ 45 dgr to cr axis

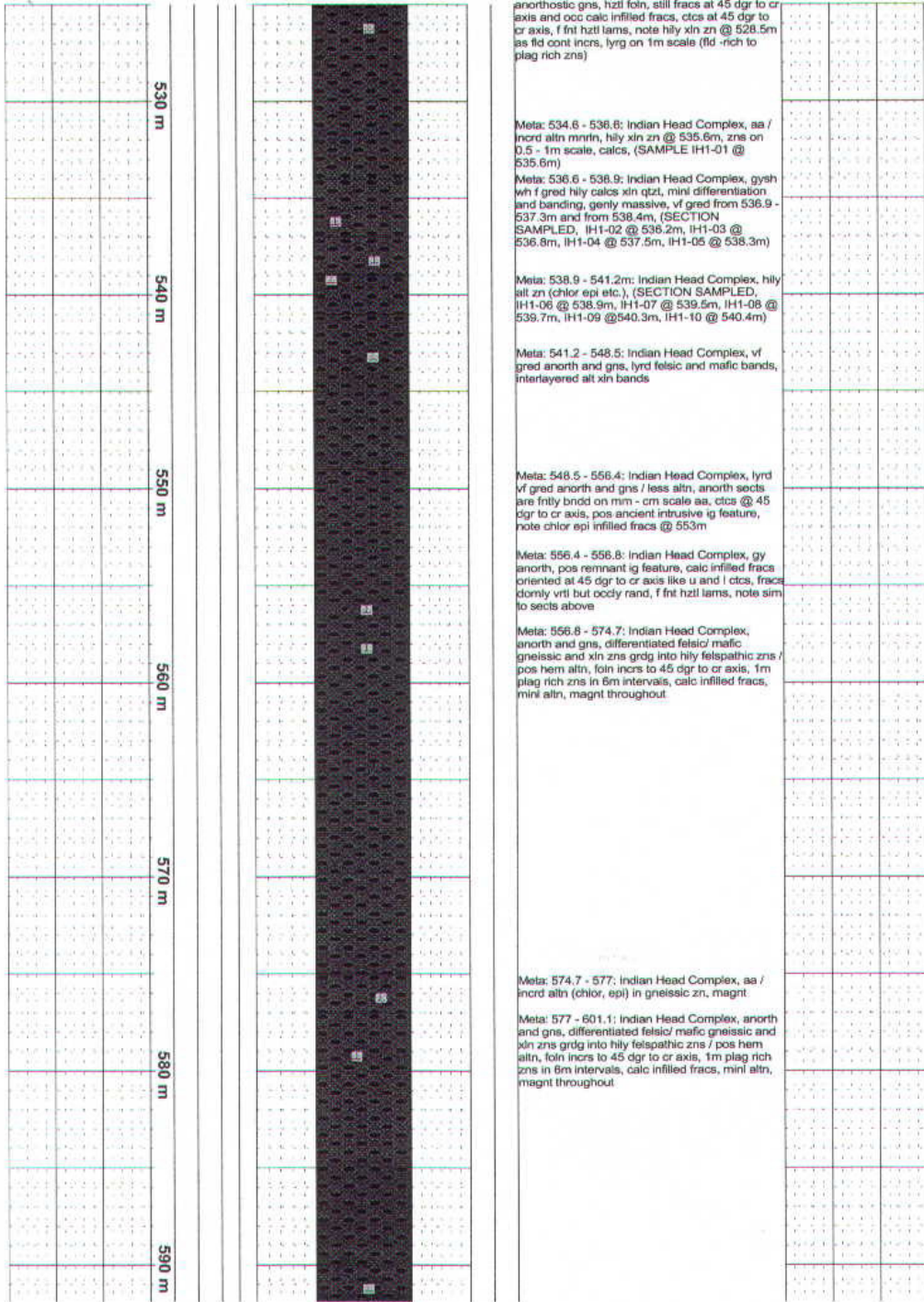
Meta: 495.8 - 497: Indian Head Complex, vf gred fld rich rexid zn, abnt calc infilled fracs

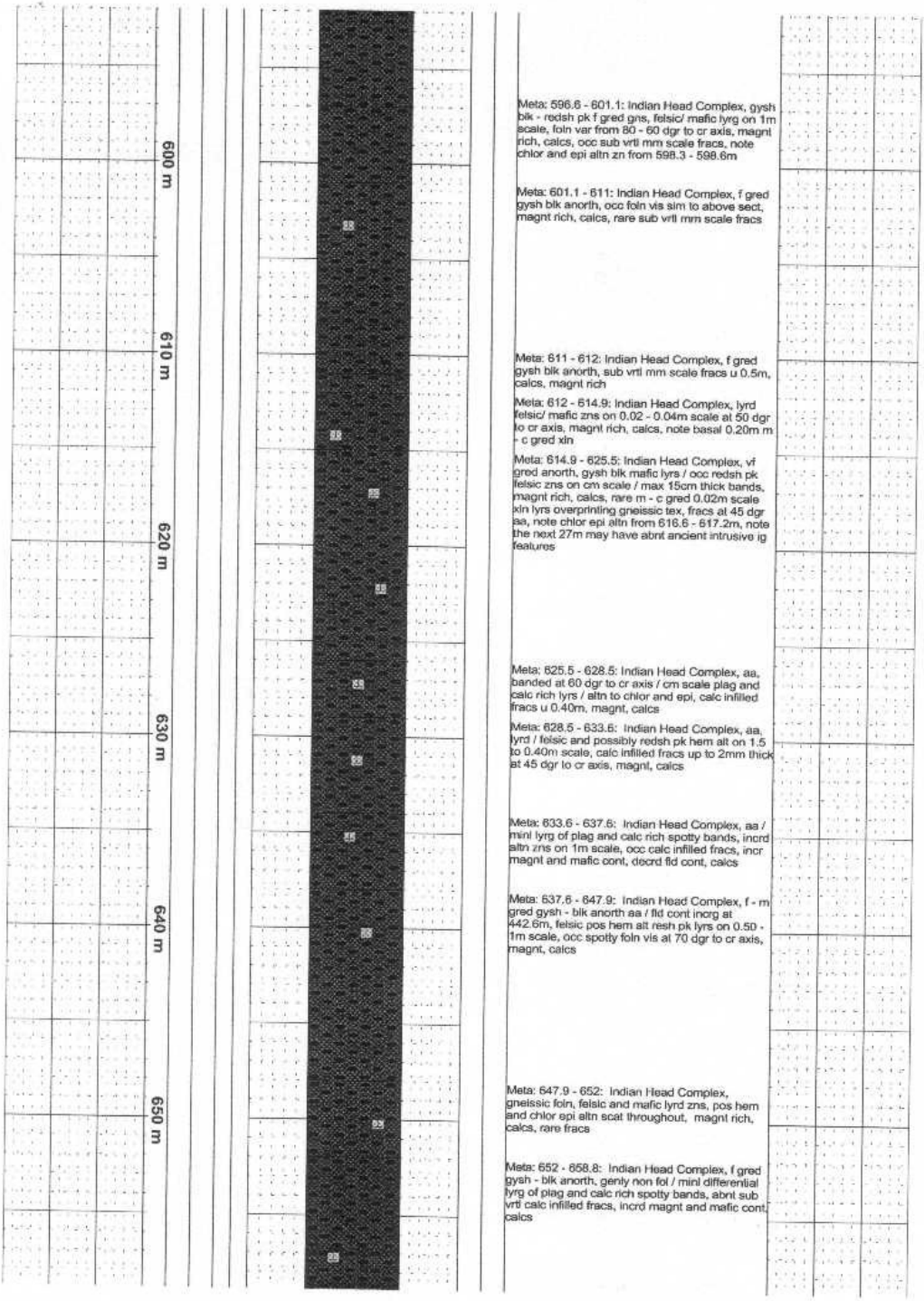
Meta: 497 - 502.7: Indian Head Complex, gy aph, pos ancient intrusive ig feature to 498m and gns interlayered below

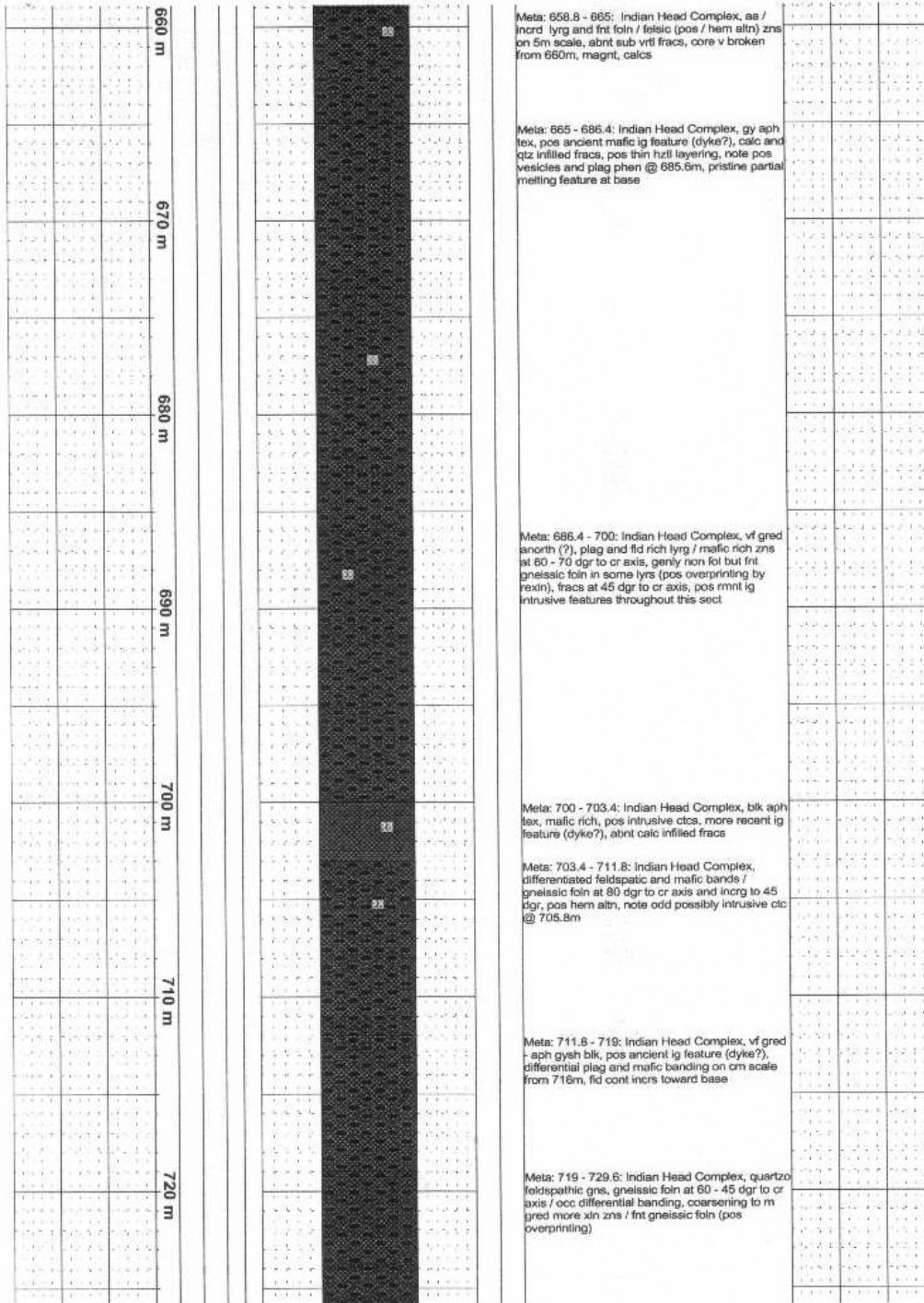
Meta: 502.7 - 523.5: Indian Head Complex, quartzo feldspathic gns, hztl foln, xln zns lynd / gneissic zns on 2m scale, fld cont var, mafics may contain chromite (note feature @ 514.6m)

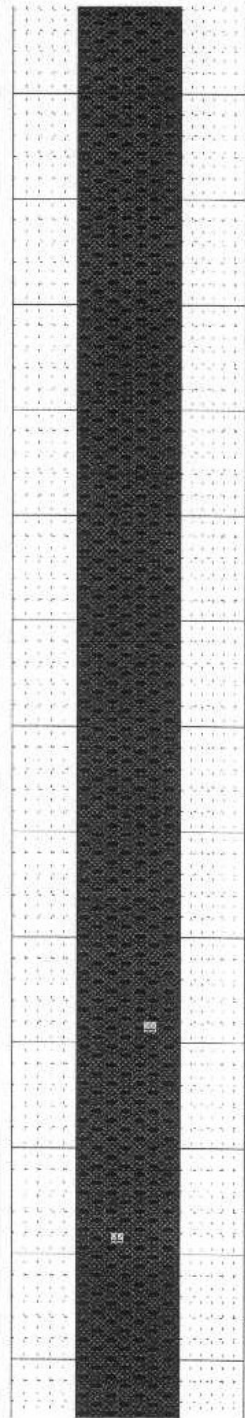
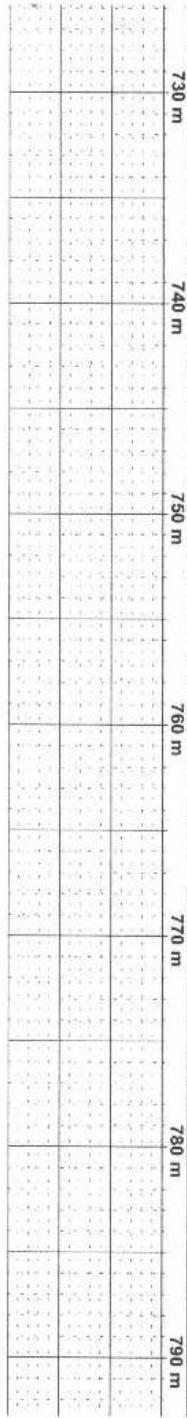
Meta: 523.5 - 534.3: Indian Head Complex, anorthositic gns hztl foln still fracs at 45 dgr to cr











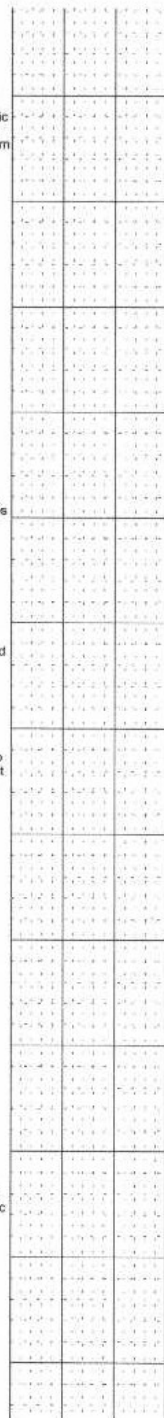
Meta: 729.6 - 748: Indian Head Complex, aa /
incrd frequency and thickness of differential felsic
and mafic zns (10s of cm rather than cm scale
banding), note felsic zns may have hem altm from
746 - 748m

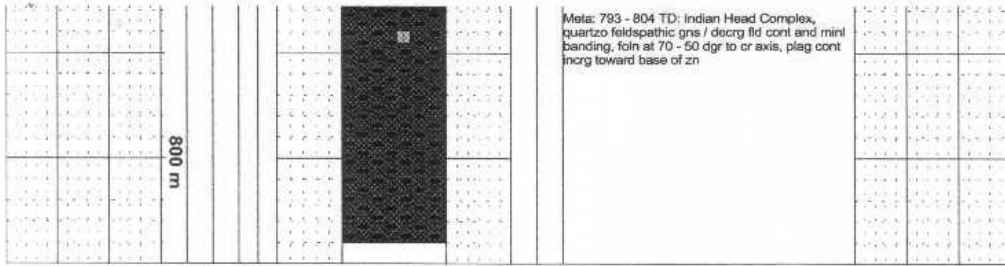
Meta: 748 - 755.7: Indian Head Complex,
anorthositic xin (overprinting) and gneissic zns,
plag shows some sec altn mmrn to chlor epi, pos
ancient mafic ig feature (dyke?)

Meta: 755.7 - 761: Indian Head Complex, aa lyrd
on 3m scale with vf grad feldspathic zns / rare
foln

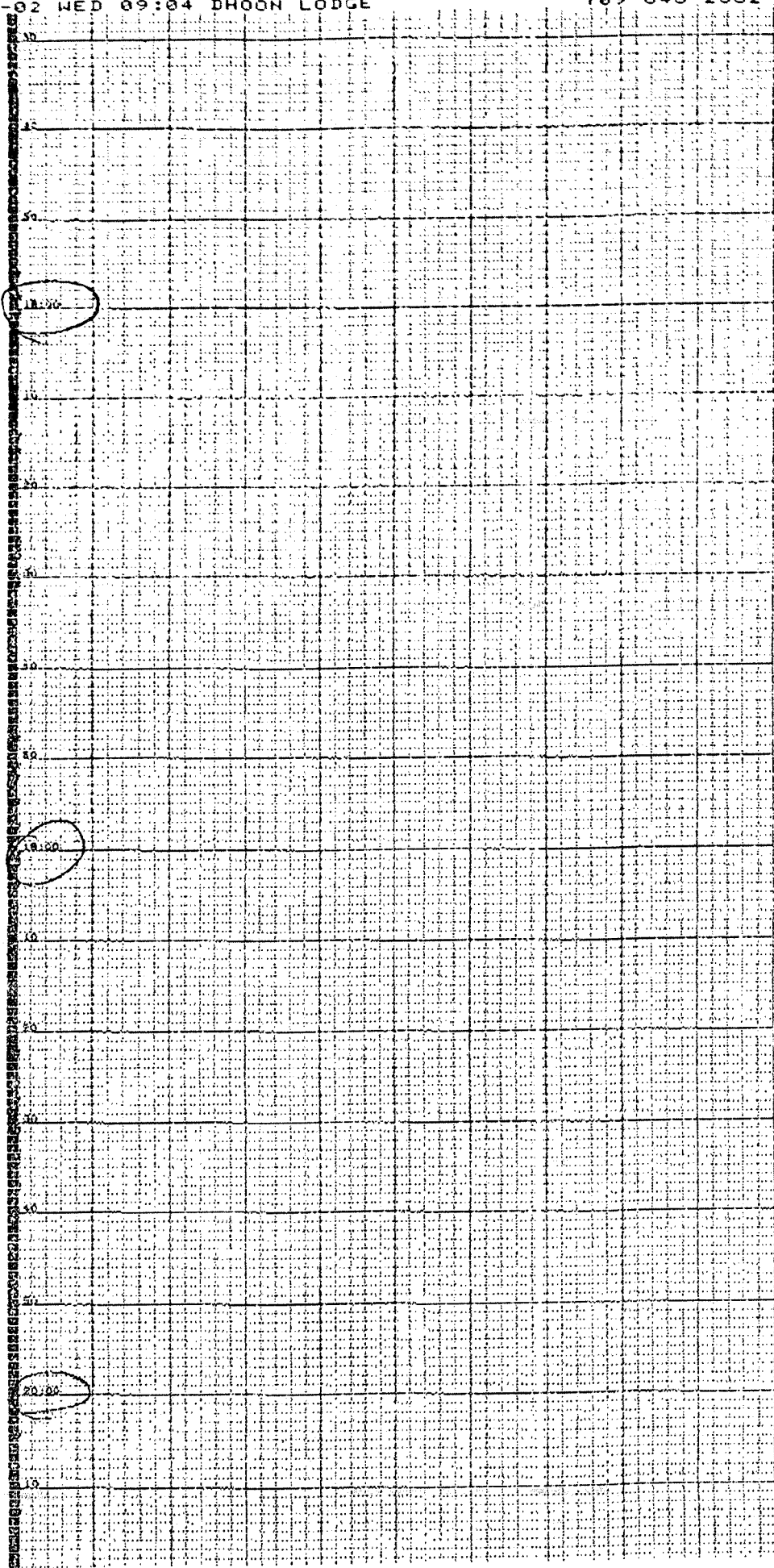
Meta: 761 - 781: Indian Head Complex, aa up to
1m thick zns lyrd / 2m feldspathic zns, mafic cont
degrg, note chlor epi infilled sub vert fracs from
778.5 - 781m

Meta: 781 - 793: Indian Head Complex, sim to
above but / interlayred gneissic and xin textures
at 60 - 45 dgr to cr axis on 1m scale / feldspathic
zns





CIVE-141
FEB 4/02

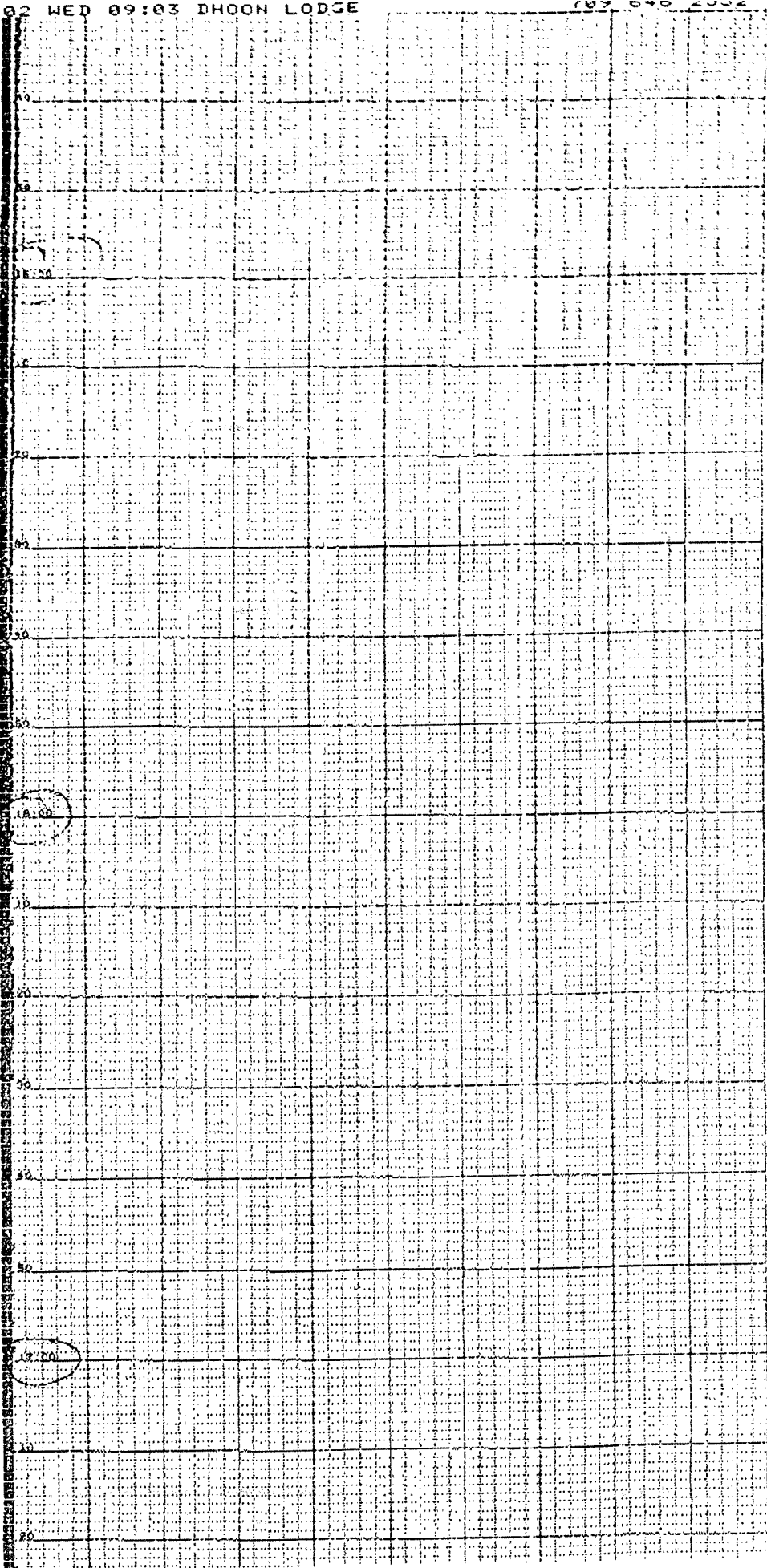


I 802.58m
ADD ROD

← 804m
T.D.

CIRCULATING

CIVC-141
FEB 4/02



799.58m

PULL
TUBE

BLOCKED
↓
WASHING



FEB 4/02
CVC-1H1

P. 03
793.58m

PULL
TUBE
↓
BLOCKING
+
WASH

793.58

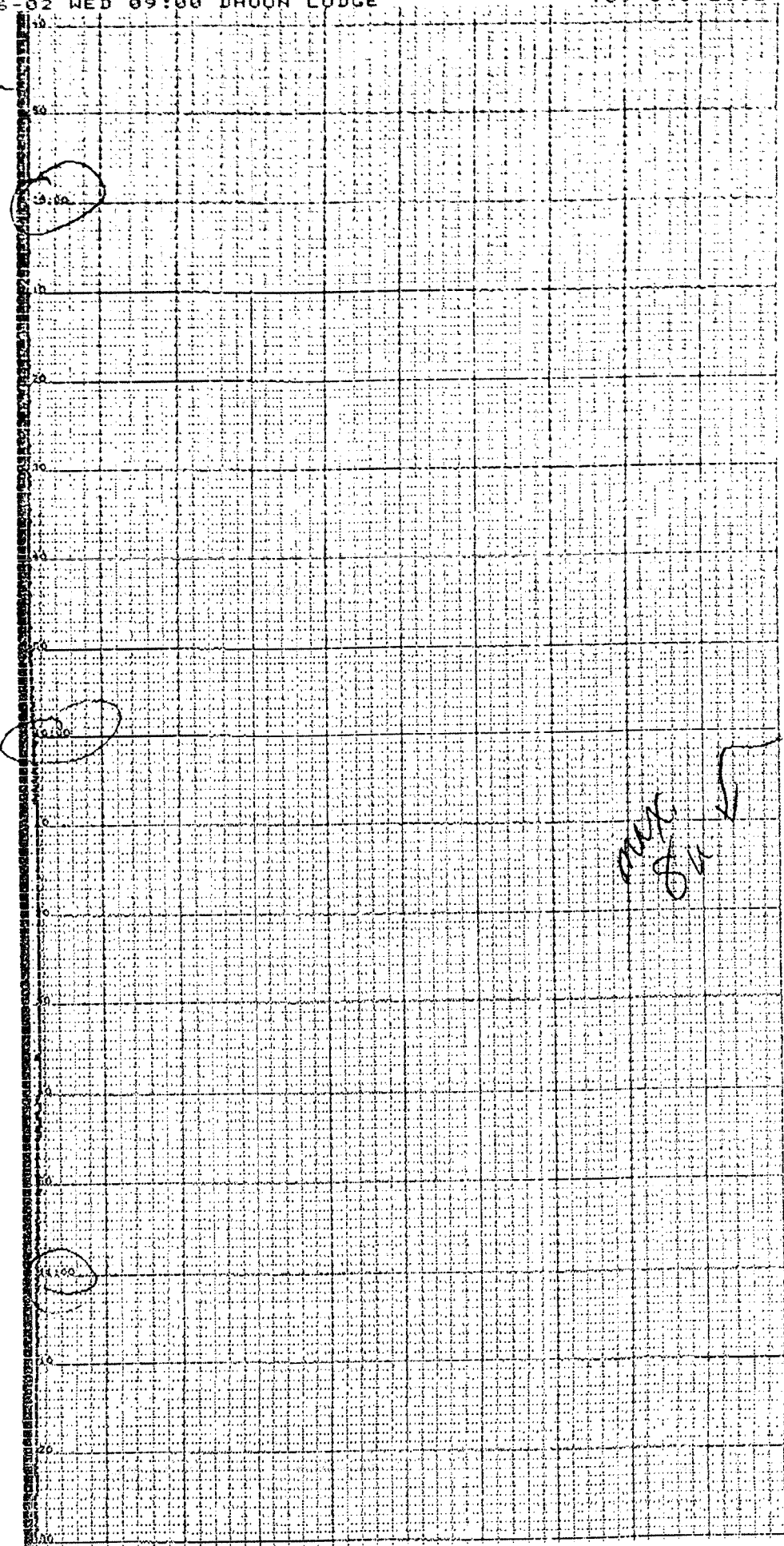
793.58

793.58

796.58m
ADD
ROD

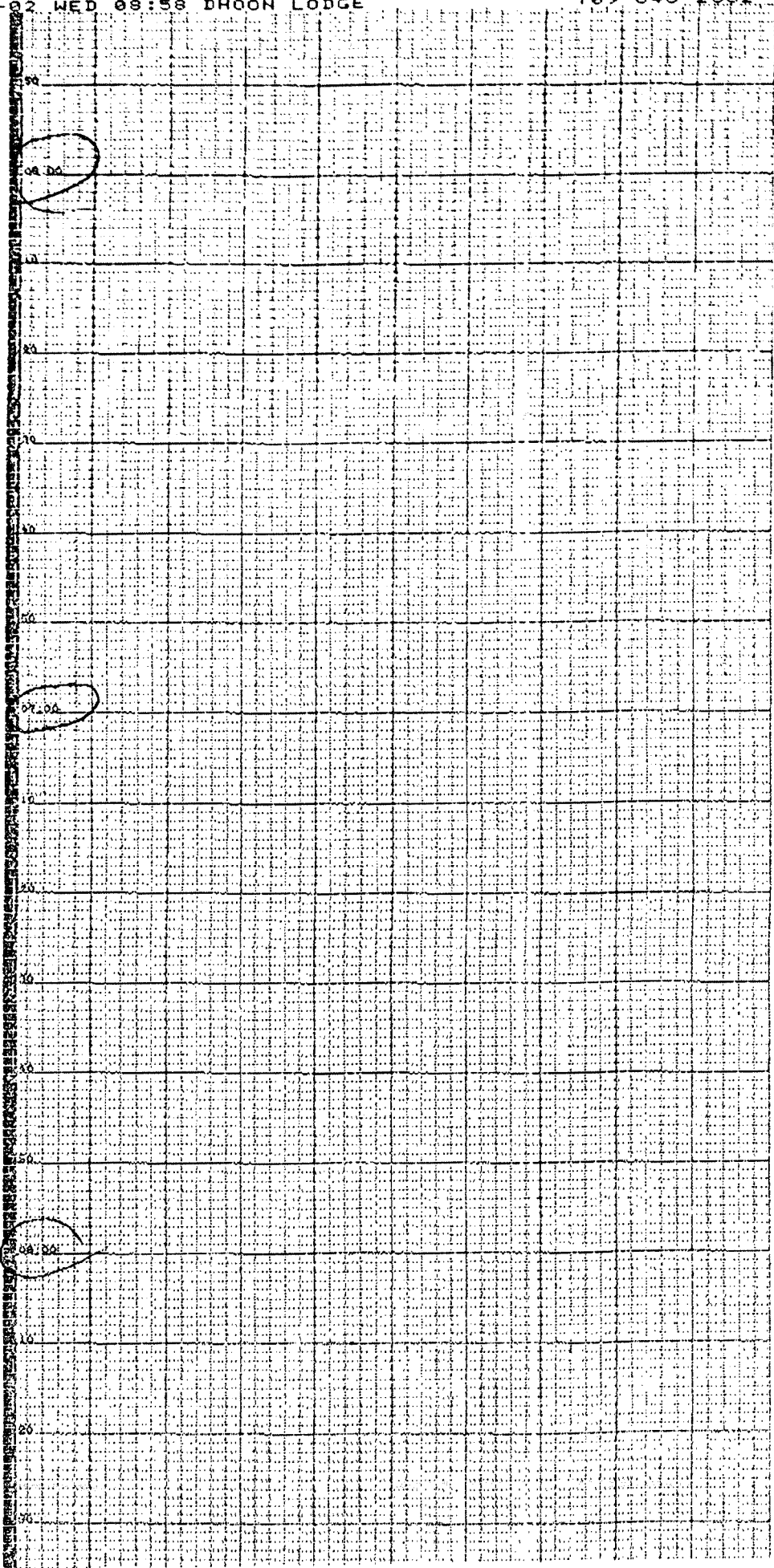
max
DU ↓

CVC-III
FEB 4/02



7.85
 790.56m
 ADD
 ROD

CIVC-1H1
FEB 4/02



783.58m

784.58m

ADD
ROD

787.58m

SURVEY

PULL
TUBE



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FAX TRANSMITTAL COVER PAGE

Date: February 6, 2002
To: George Langdon
Of: Canadian Imperial Venture Corporation
Fax #: 709 - 739 - 6605
Pages (incl cover): 6
File #: Harry's River Area: Indian Head #1

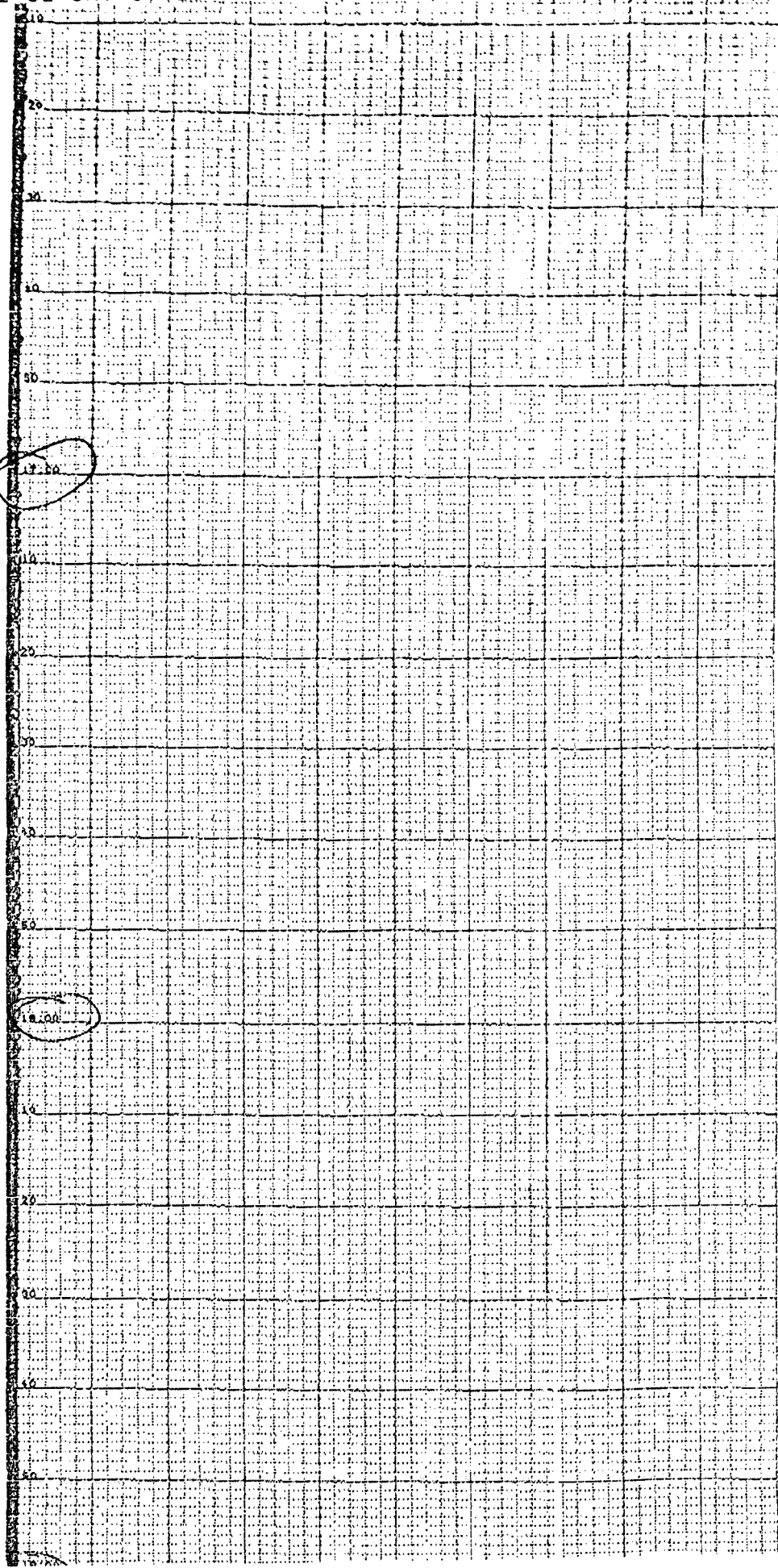
George,
As per your emailed request,
here is the gas peak. There is
another one shortly after the
second time we left the rig!
I will mail a complete copy of
the gas logs within the next
two weeks and I will email the
strip log A.S.A.P.

Kristina

From the desk of ...
Kristina Giles
THREE-D GEOCONSULTANTS LTD.
PO Box 3133, Station B, 391 Brunswick Street
Fredericton, NB Canada E3A 5G9
Tel: (506) 453-7700 Fax: (506) 453-9861
threedge@nbnet.nb.ca
www.3d-geocon.com



CVC-1H1
FEB 1/02



697.58

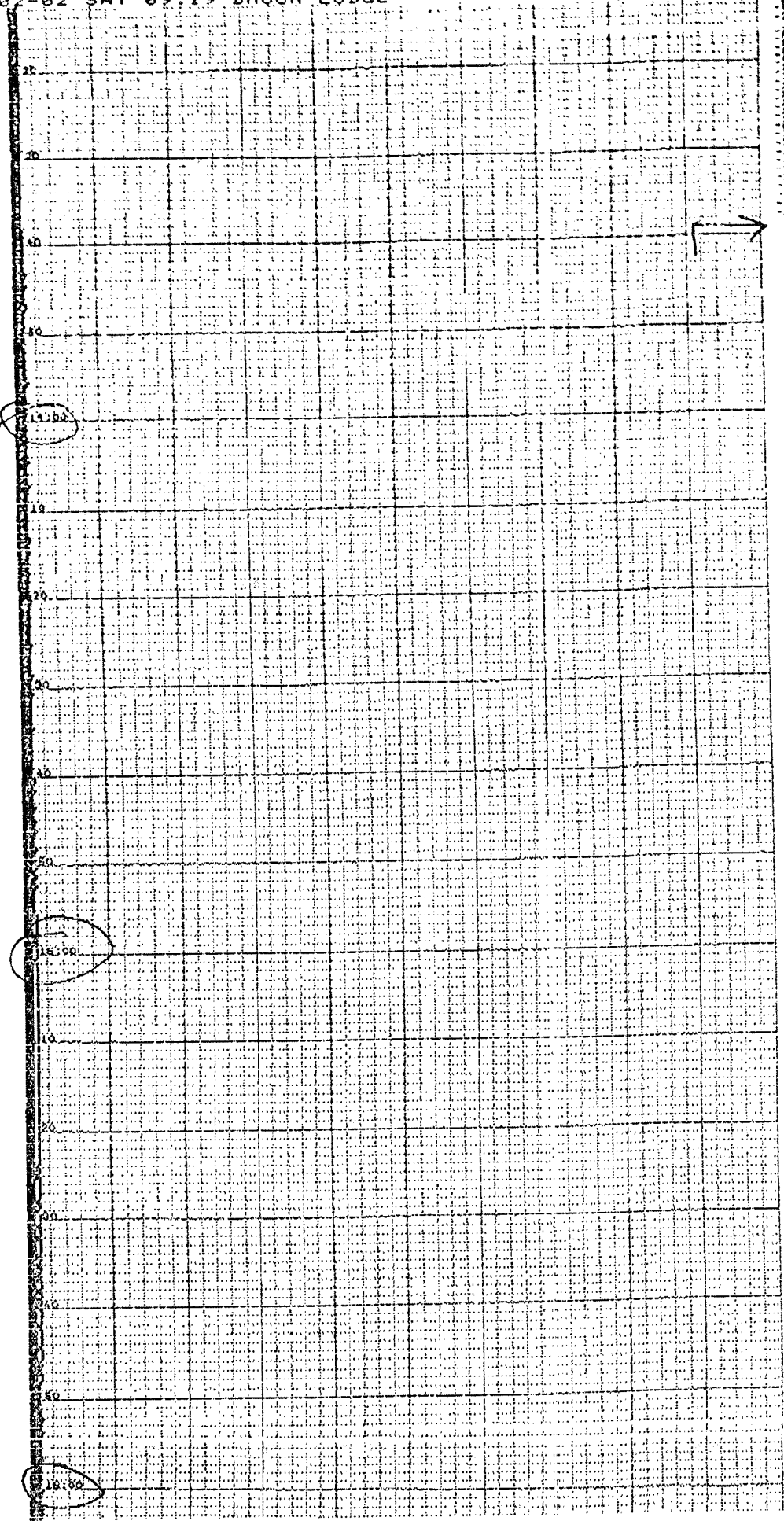
PULL
TUBE

~~478.50m~~

700.58m

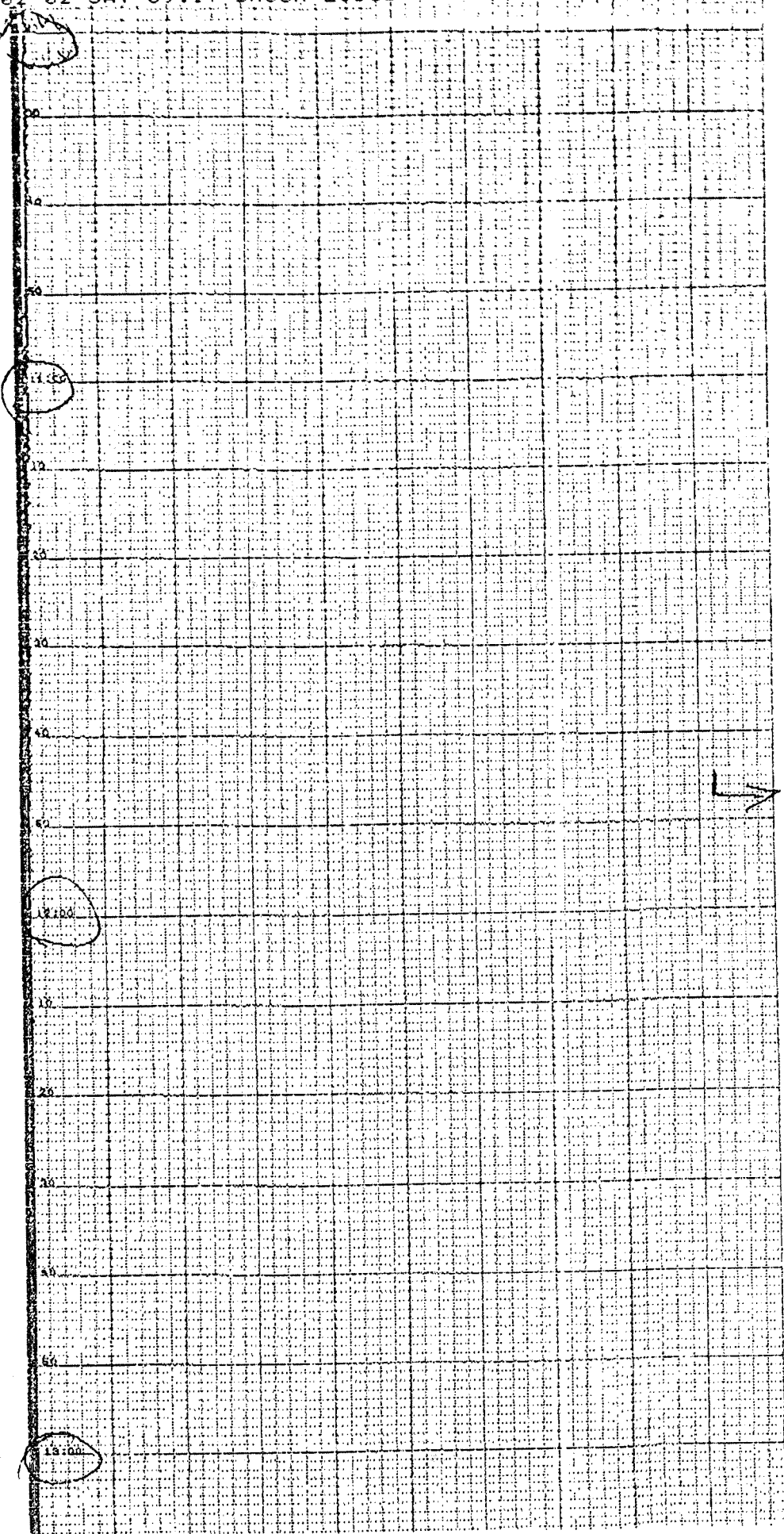
IVC-1H1
EB1/02.

~~472.58~~



694.58
~~472.58~~
 ADD ROD

IVC-1H
FEB/02



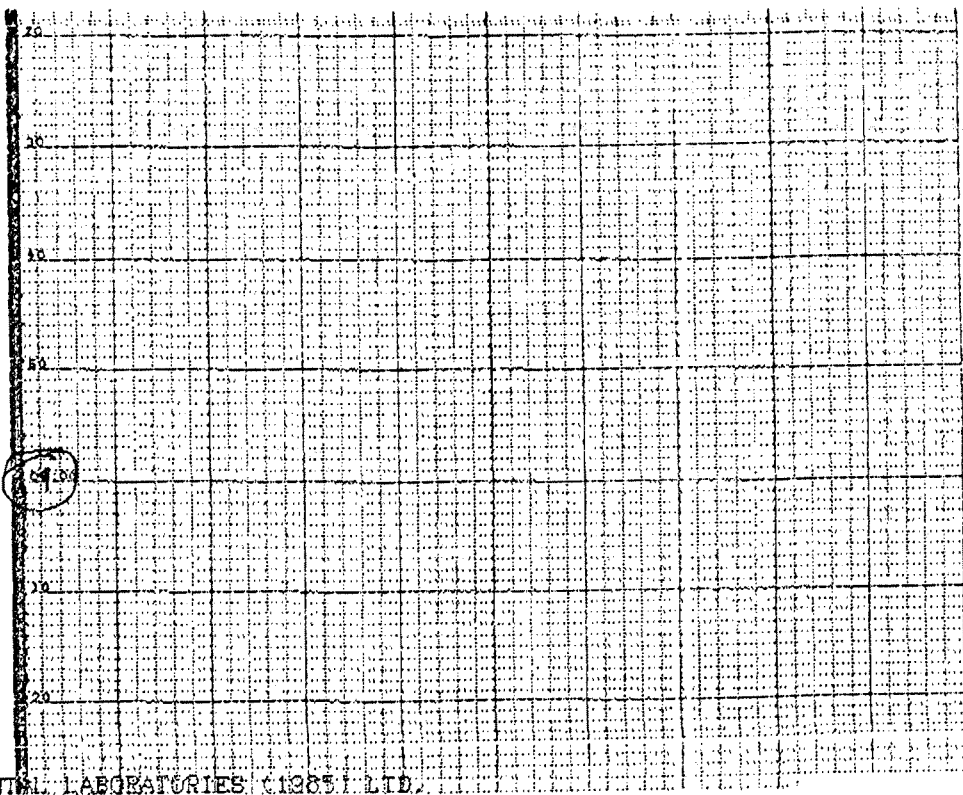
688.58m
ADD ROD

~~469.58m~~

691.58m

PULL
TUBE
+ SURVEY

February 1, 2002.
CIVC-Indian Head #1

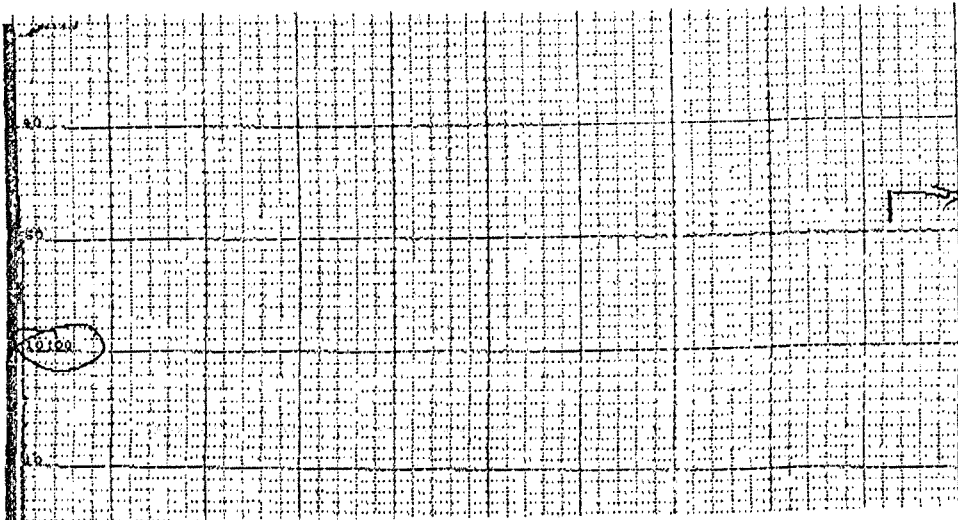


682.58m
ADD RED

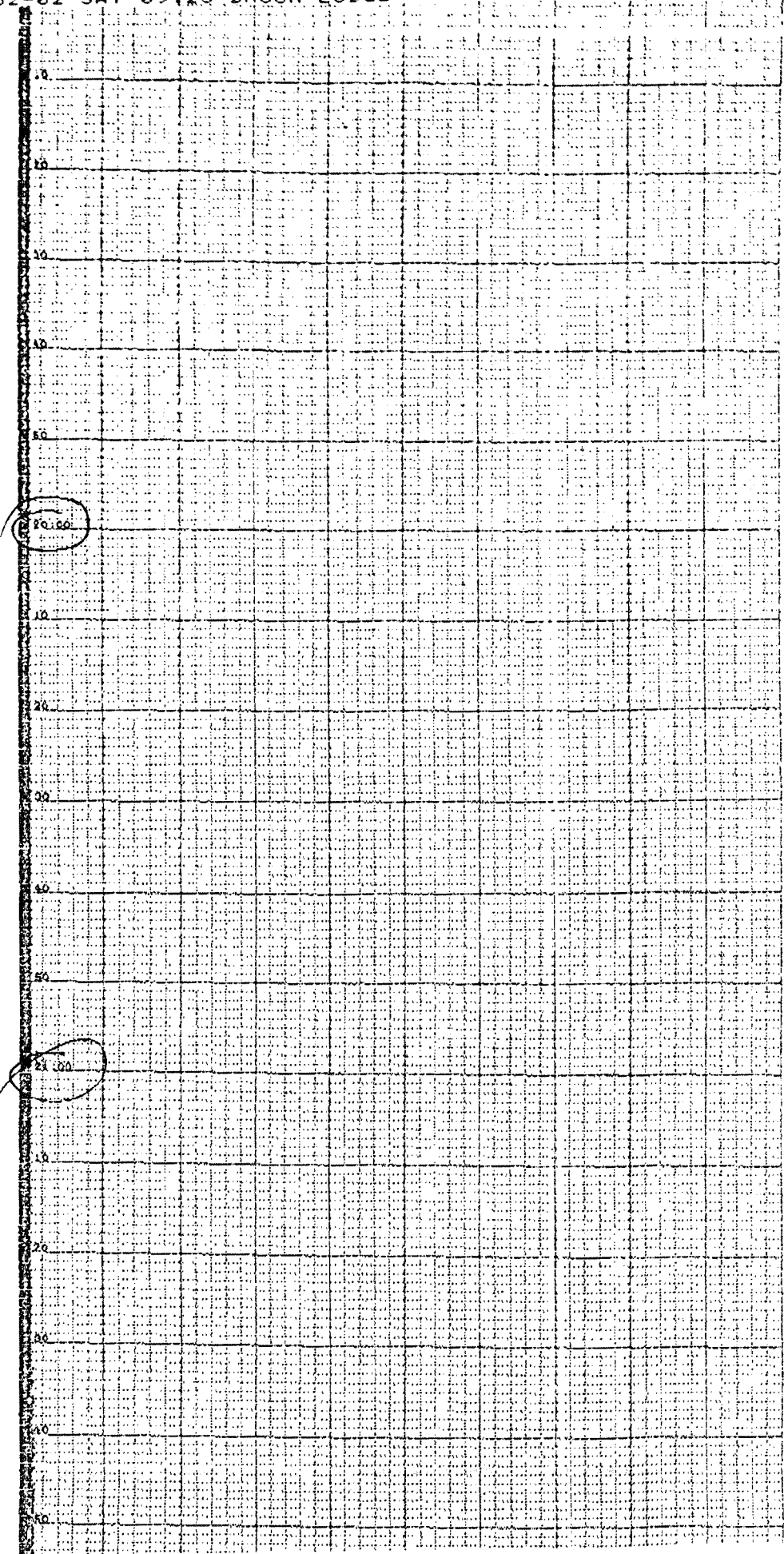
~~682.58m~~
~~ADD RED~~

CONTINENTAL LABORATORIES (1985) LTD.

POWER
SHUT DOWN



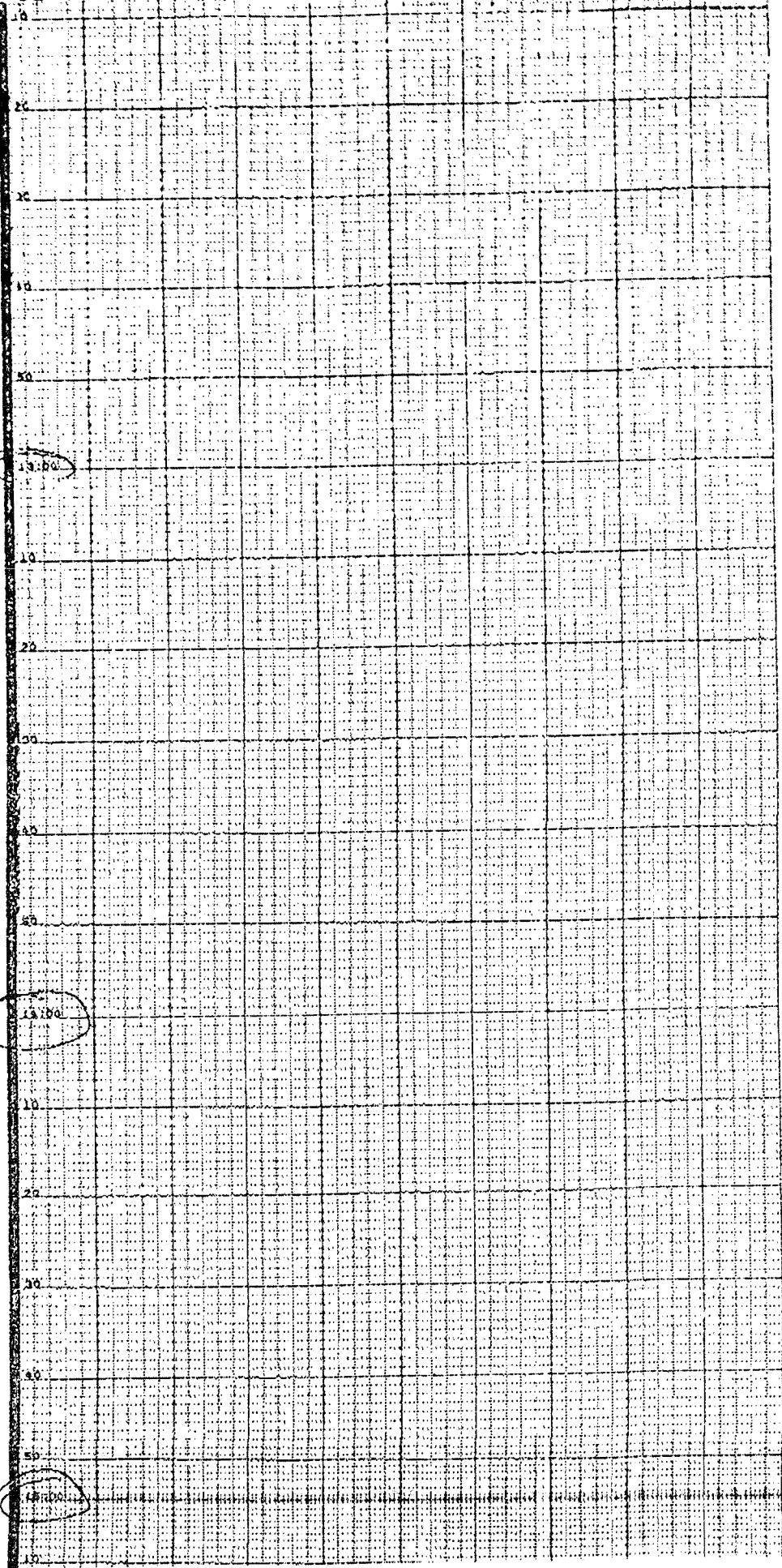
685.58m



~~381.58m~~
 21.00?

0.00 0.10 0.20 0.30 0.40 0.50 0.60 0.70 0.80 0.90 1.00 1.10 1.20 1.30 1.40 1.50 1.60 1.70 1.80 1.90 2.00 2.10 2.20 2.30 2.40 2.50 2.60 2.70 2.80 2.90 3.00 3.10 3.20 3.30 3.40 3.50 3.60 3.70 3.80 3.90 4.00 4.10 4.20 4.30 4.40 4.50 4.60 4.70 4.80 4.90 5.00 5.10 5.20 5.30 5.40 5.50 5.60 5.70 5.80 5.90 6.00 6.10 6.20 6.30 6.40 6.50 6.60 6.70 6.80 6.90 7.00 7.10 7.20 7.30 7.40 7.50 7.60 7.70 7.80 7.90 8.00 8.10 8.20 8.30 8.40 8.50 8.60 8.70 8.80 8.90 9.00 9.10 9.20 9.30 9.40 9.50 9.60 9.70 9.80 9.90 10.00

JVC-IH1
JAN 31/02



13:00

10

20

30

40

50

13:50

10

20

30

40

50

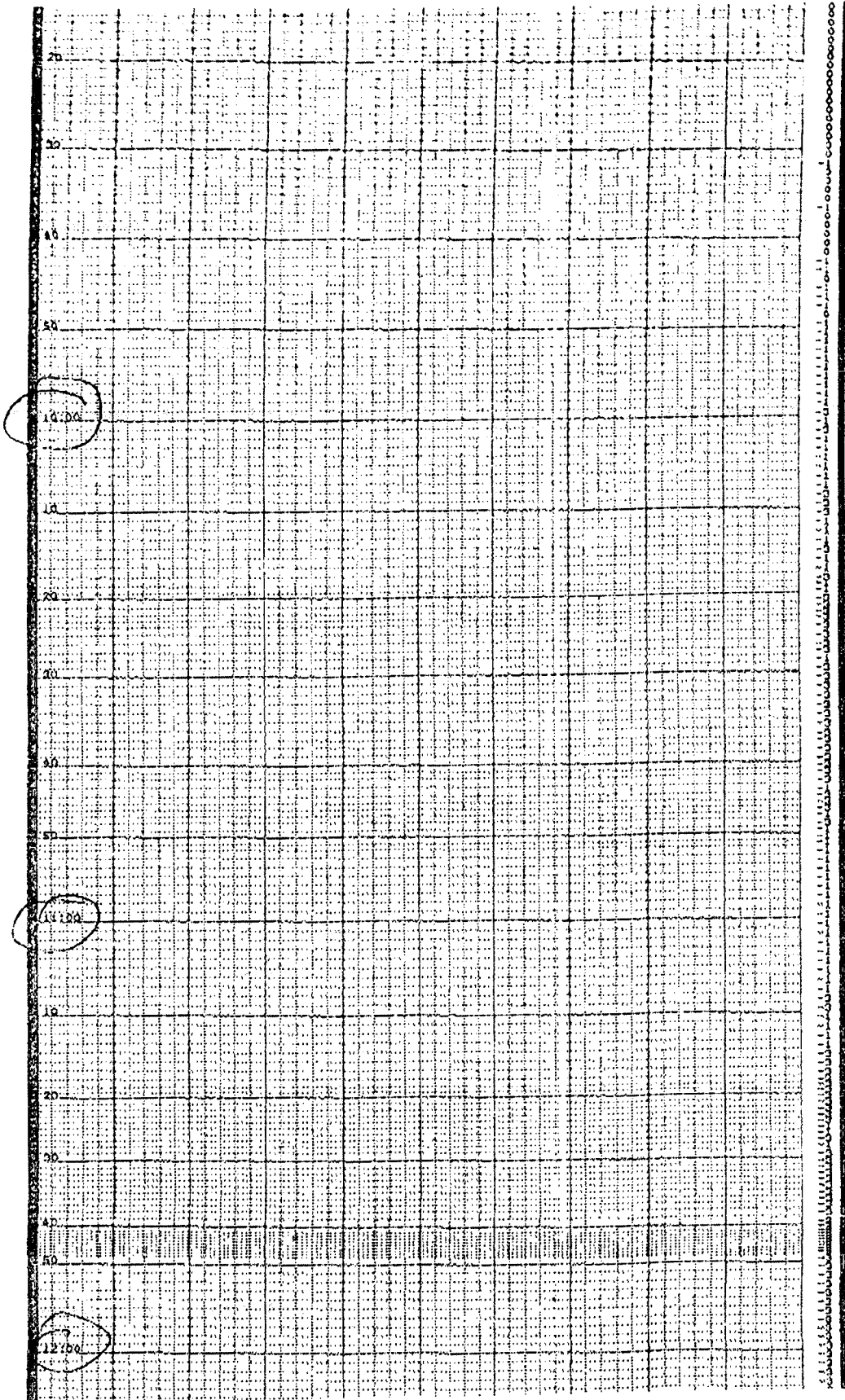
14:00

10

670.58m
PULLING
TUBE

ROP = ~2m/hr
to 673.58m
ADD ROD
ROP = ~2m/hr
to 6:50pm
TOOTH HIT
until 3:30am

CVC-Indian Head #1 - January 31/02.

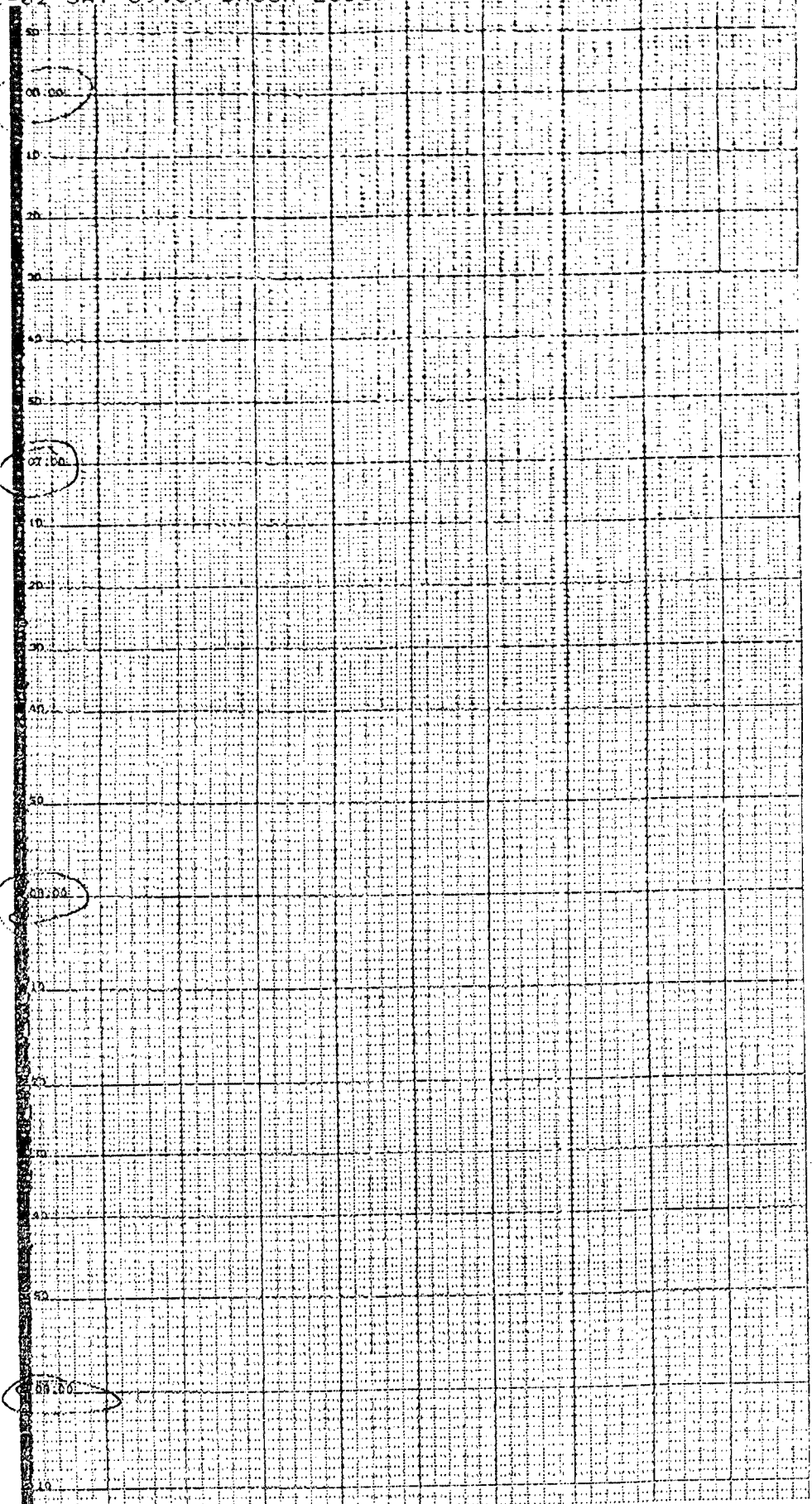


664.58m
SURVEY
PILING
TUBE

667.58m

CIVC-1H1

JAN 31/02



657.3
2

WASH

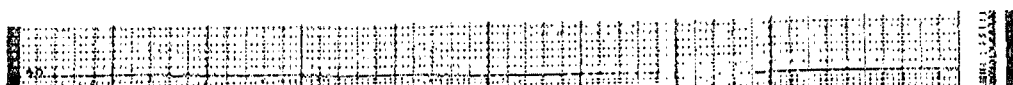


658.57
ADDING
ROD

TUBE
PULLED



661.58m
ADDING
ROD



~~Handwritten scribble~~ R. Blue



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FAX TRANSMITTAL COVER PAGE

Date: February 1, 2002
To: George Langdon
Of: Canadian Imperial Venture Corporation
Fax #: 709 - 739 - 6605
Pages (incl cover): 8 + cover
File #: Harry's River Area: Indian Head #1

Handwritten notes:
Dhoon Lodge
(709) 646-5177
900m vs. 800m

Gas logs from 0:600 January 31/02 through 15:00. (All other pages destroyed in a paper jam - the hazards of using a print-out only system. Decipherable readings, showed no gas readings during this time.) Plus logs from 19:00 - 22:00. Still in basement complex to 720m.

Kristina

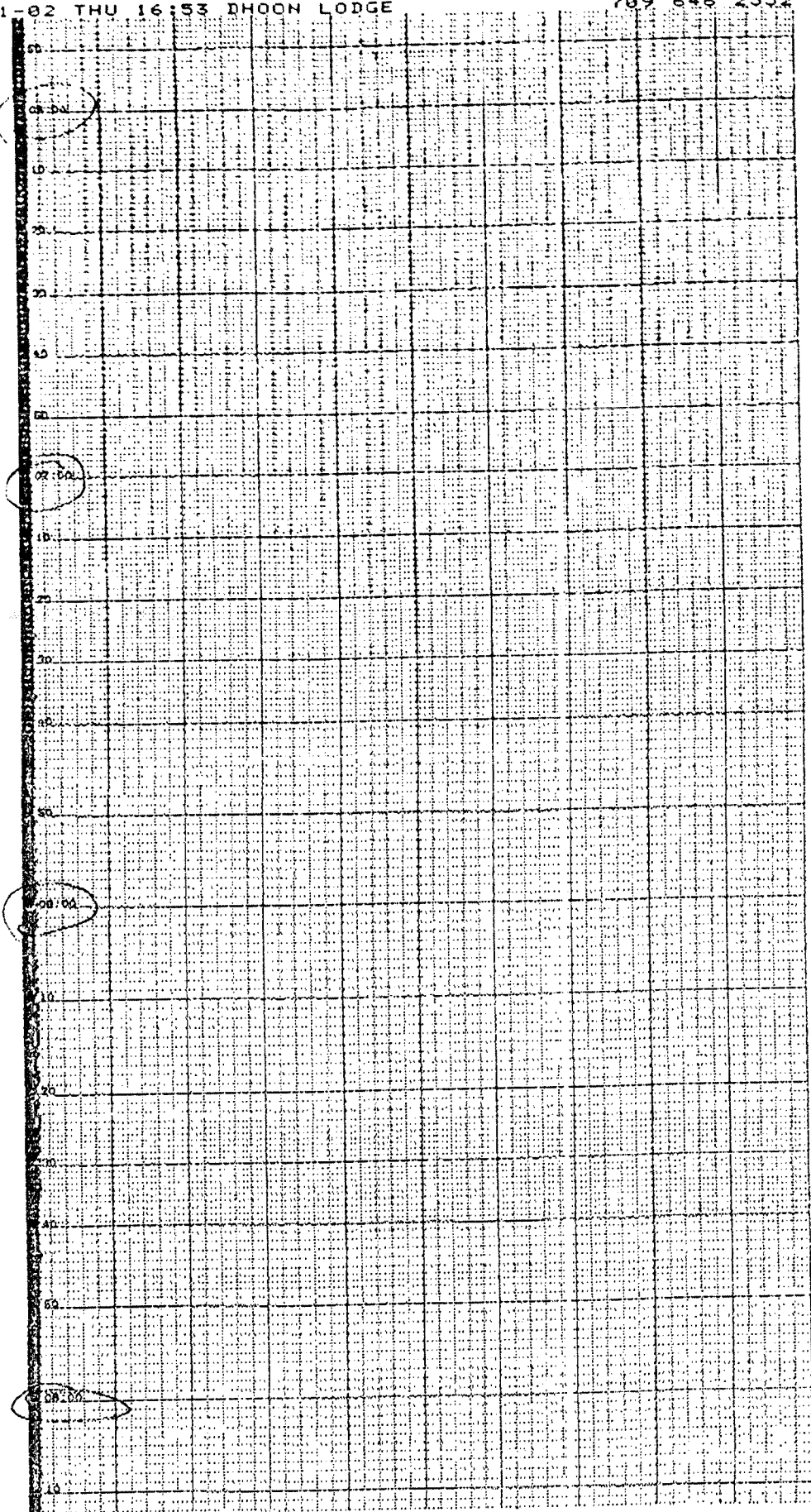
From the desk of ...

Kristina Giles
THREE-D GEOCONSULTANTS LTD.
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Fredericton, NB Canada E3A 5G9
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CIVC-1H1

JAN 31/02



657.38
m

WASH

658.58
ADDING
ROD

ZINC-1H1
JAN. 31/02

max
= 13
to 50m
depth

07.20

20.20

48.20

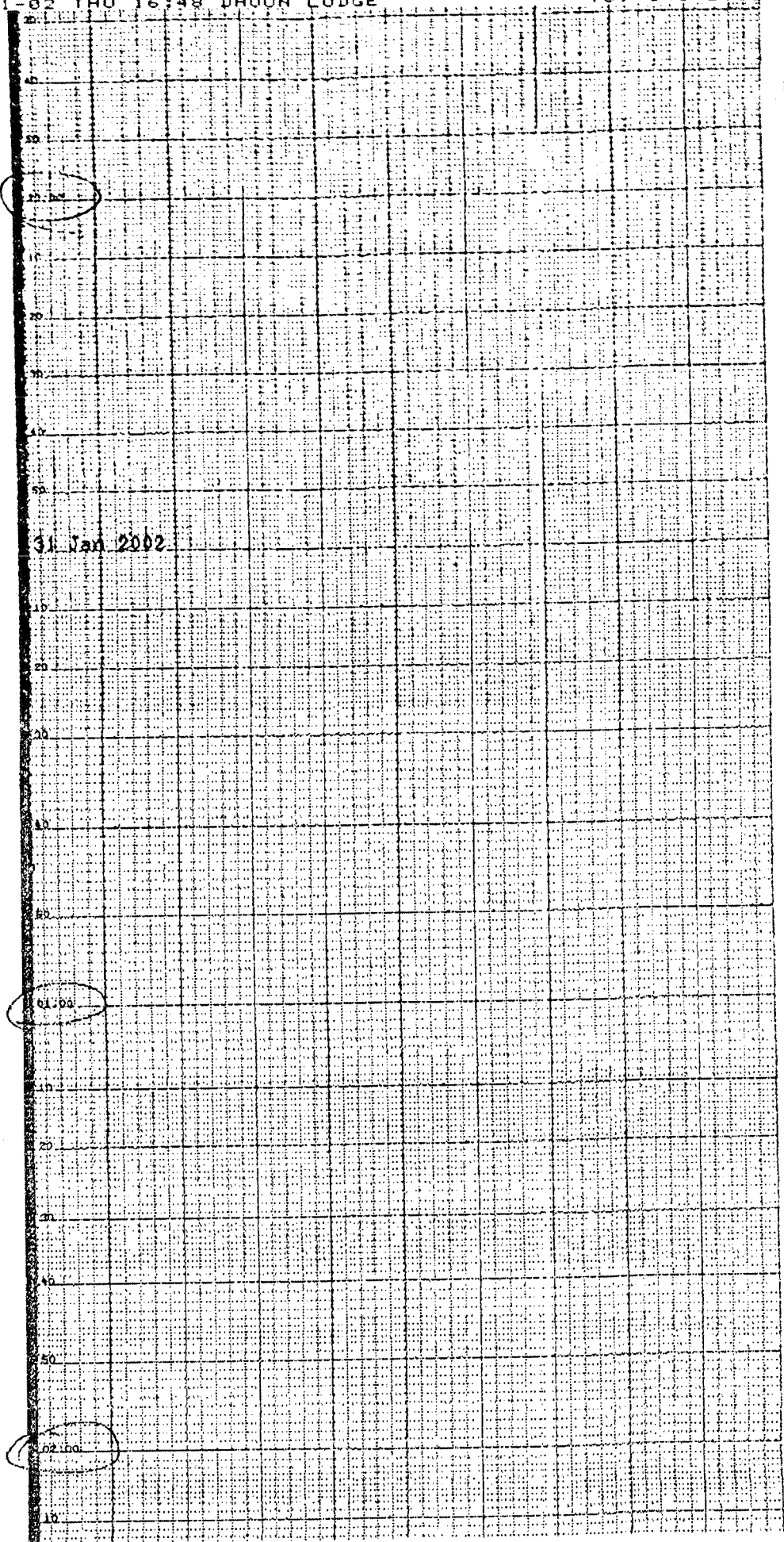
6:52.58m
BLOCKED
WASH

PULLED
TUBE

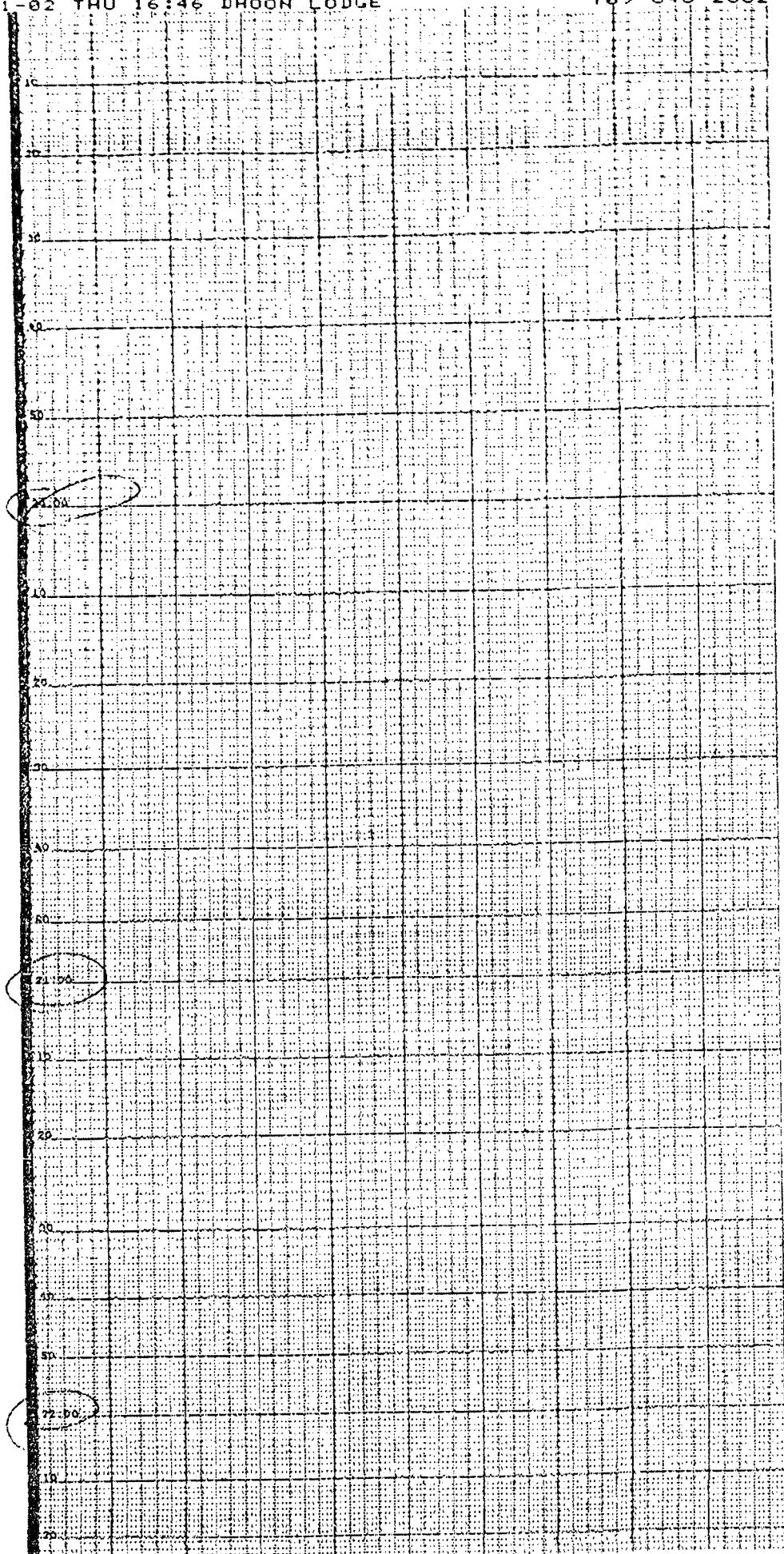
6:55.58m
ADDING
RED

Handwritten signature

INC-111
JAN 30-31



ZINC-1H1
JAN 30/02



18.00

21.00

22.00

646.58 n
ADD MOB

643.58 n
PULLING
TUBE



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FAX TRANSMITTAL COVER PAGE

Date: January 31, 2002 (3:30 pm)
To: George Langdon
Of: Canadian Imperial Venture Corporation
Fax #: 709 - 739 - 6605
Pages (incl cover): 5 + cover
File #: Harry's River Area: Indian Head #1

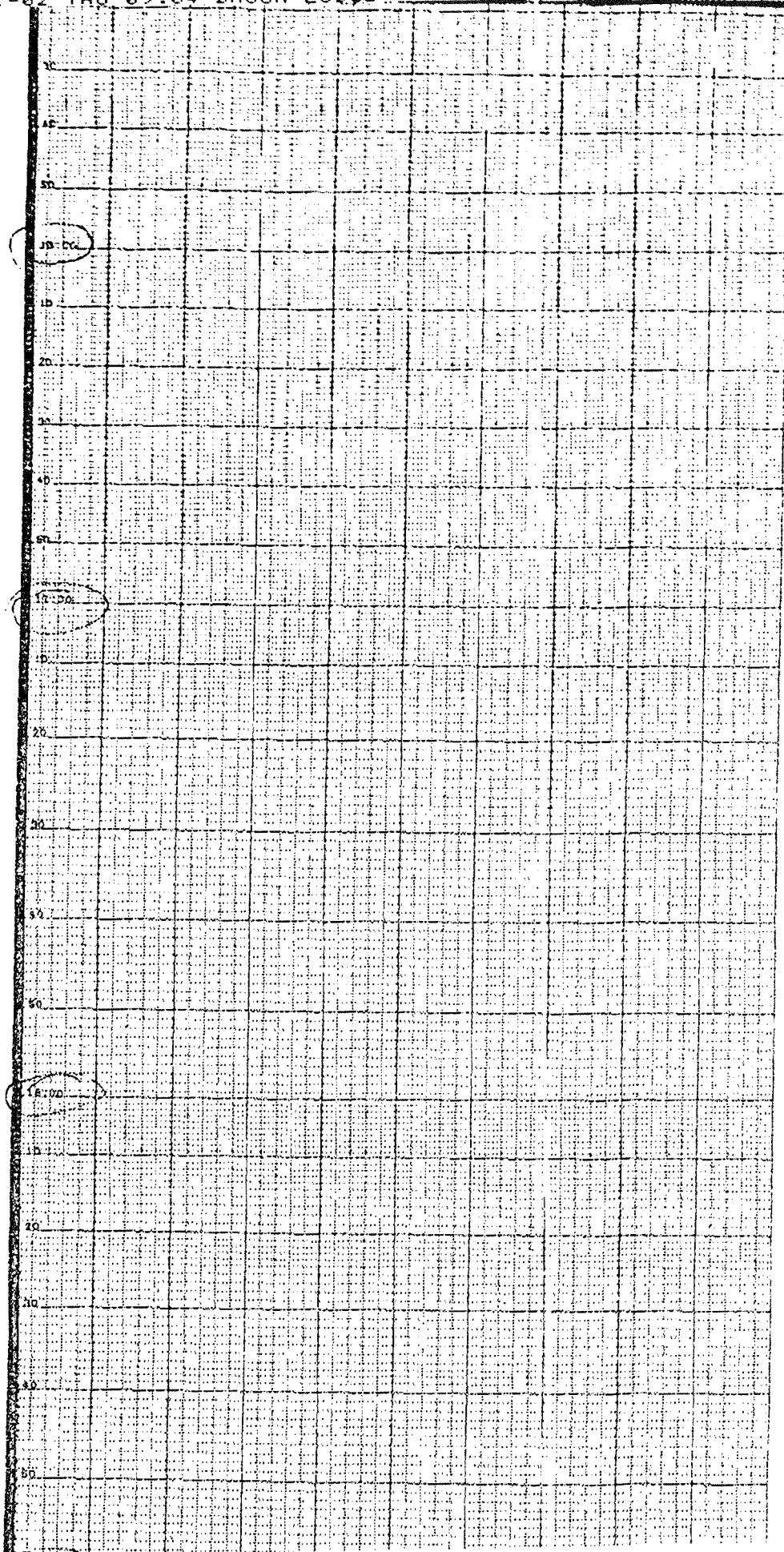
Gas logs from January 30th
19:00 through January 31st 09:00 am.
Note slight increase @ 10200'. The
geology shows nothing to account for this;
still basement with few fractures and
slightly larger grains in amorphosite.
Currently drilling at 670⁺m (2:45pm)
Lithology has ^{also} been sent via email to
George & Kevin.

Thanks!
Kristina

From the desk of ...
Kristina Giles
THREE-D GEOCONSULTANTS LTD.
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CIVC-141

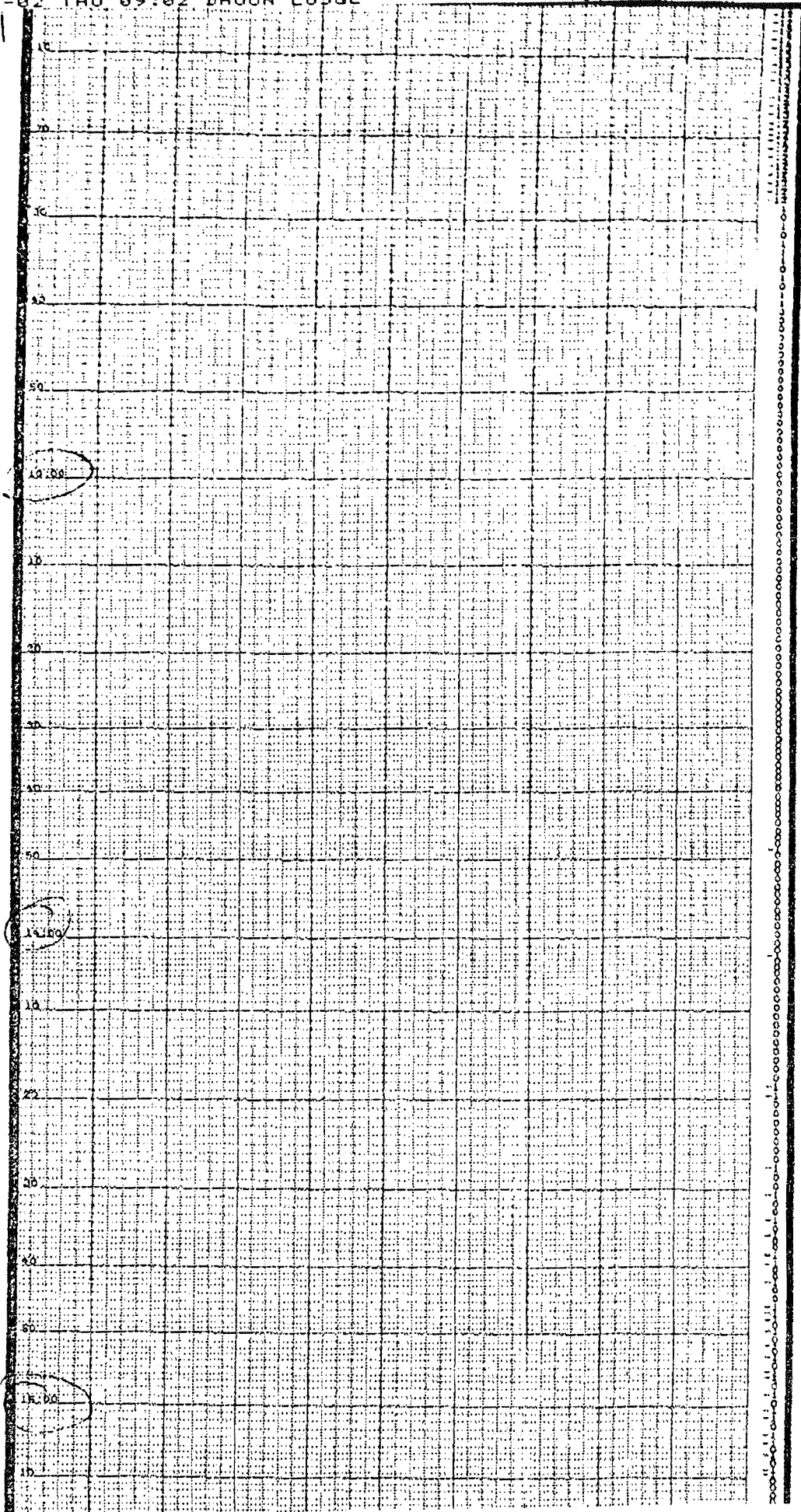


634.58m
ADDWGI
RD

637.58m

PULLING
TUBE

CVC-1H1



RCP
 to 3.2m/l
 from
 626m
 - 628m

631.58m

SURVEY

CIVC-111

Indian Head (#) -

January 30, 2002

UNITS →

0 100 200 300 400 500



619.58m
PULLING
TUBE

622.58m
ADDING
ROD

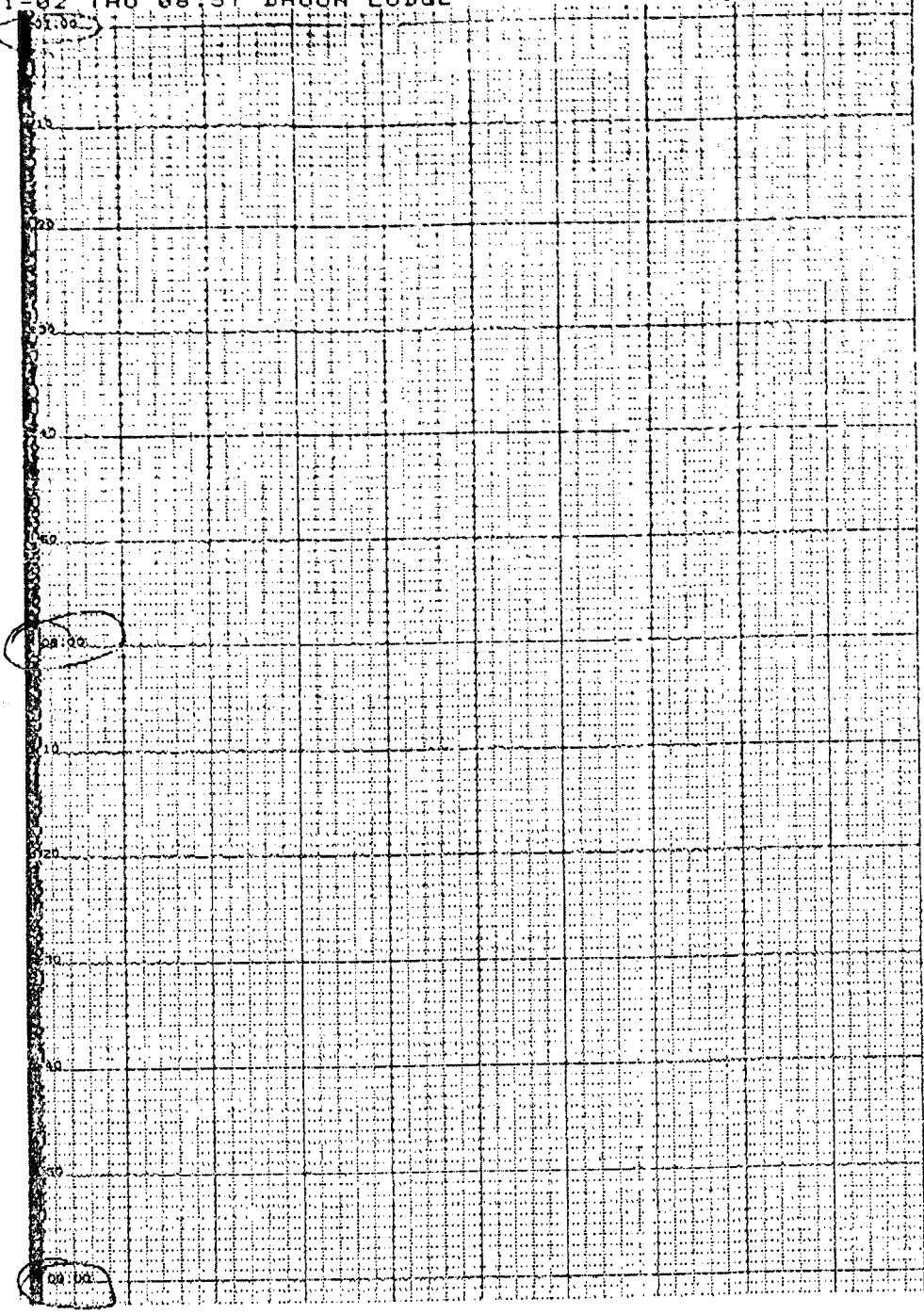
625.58m
PULLING
TUBE

CONTINENTAL LABORATORIES (1985) LTD.
POWER
SHUT DOWN

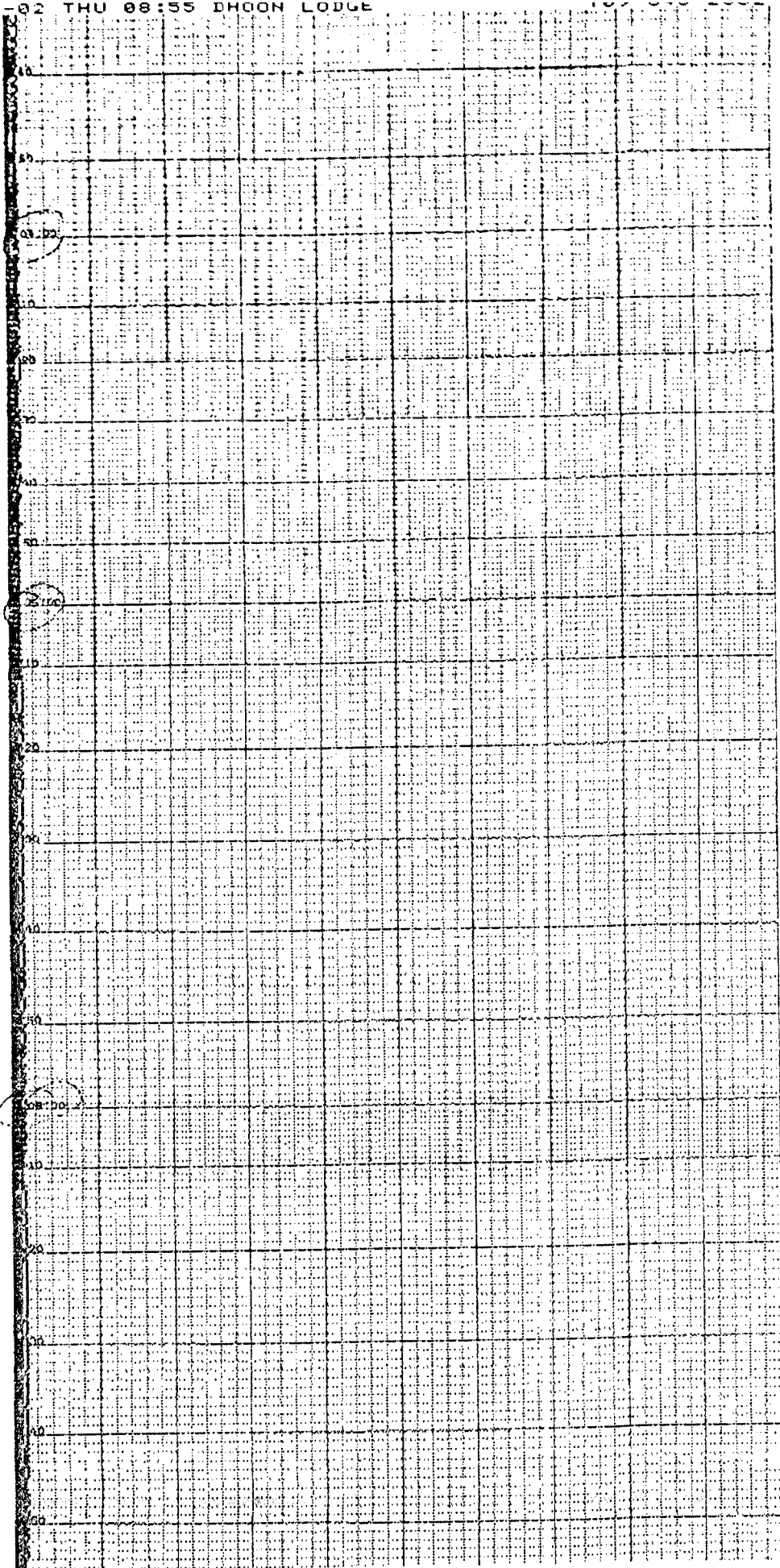


12.00

CINC-7H1



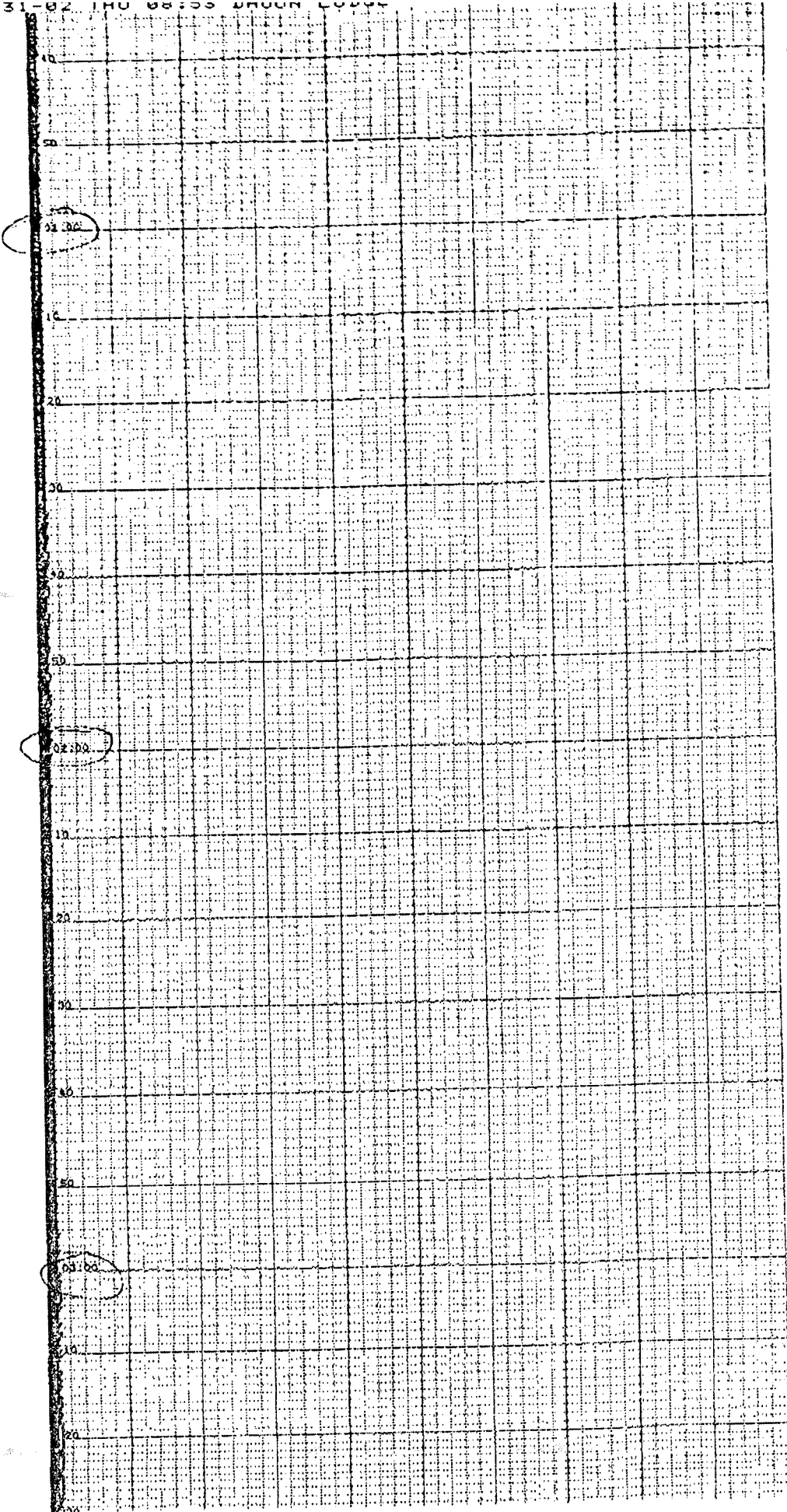
I 616.58m
 ADDING
 ROD



~~01.00~~

13.58m
PULLING
TUBE
↓
NEXT TUBE
WON'T
LOCK

21VC-IH1

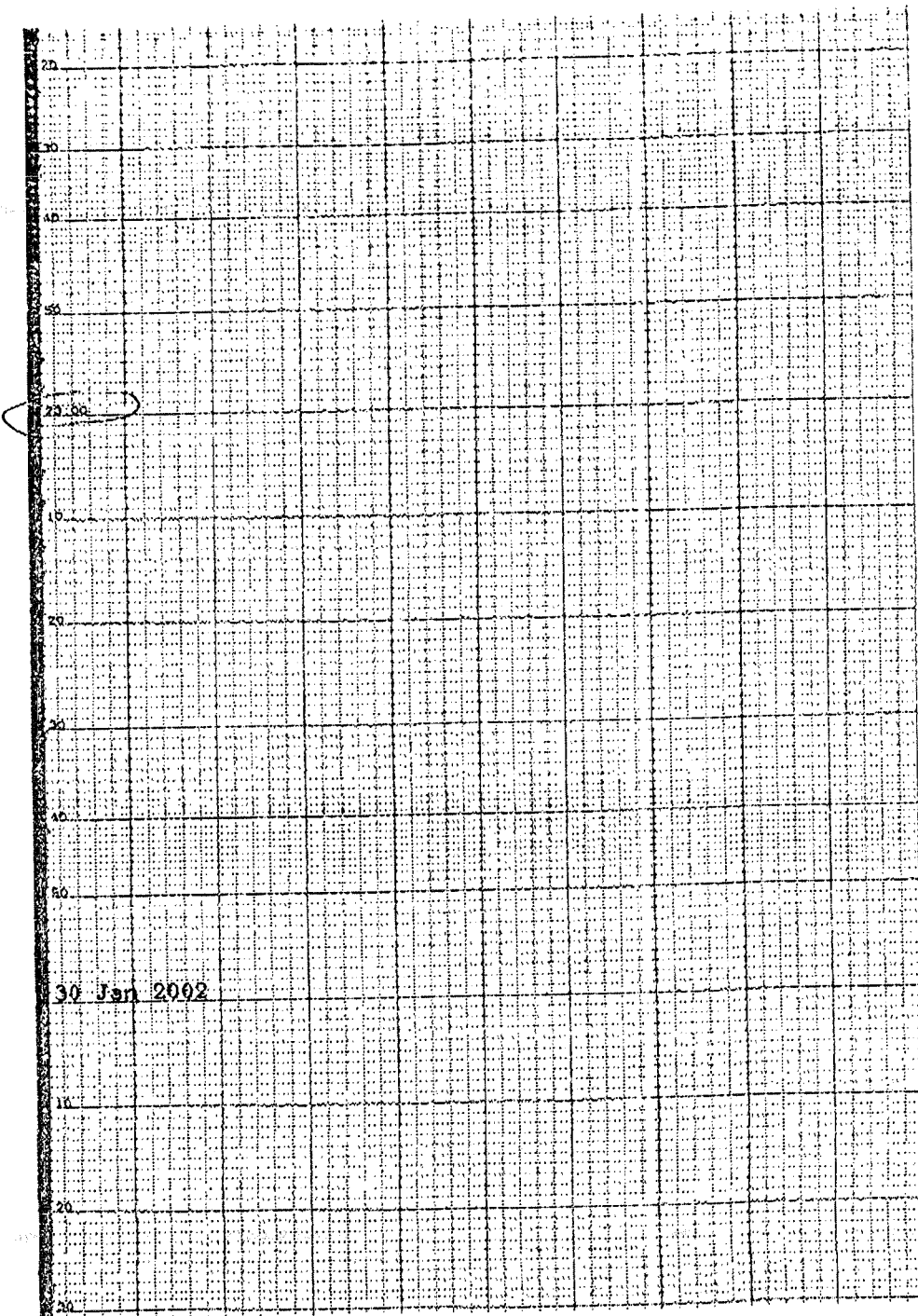


BLOCKED
 ↓
 WASH
 ↓

PULLING
 TUBE

Cell 0.58m

CIVE-III

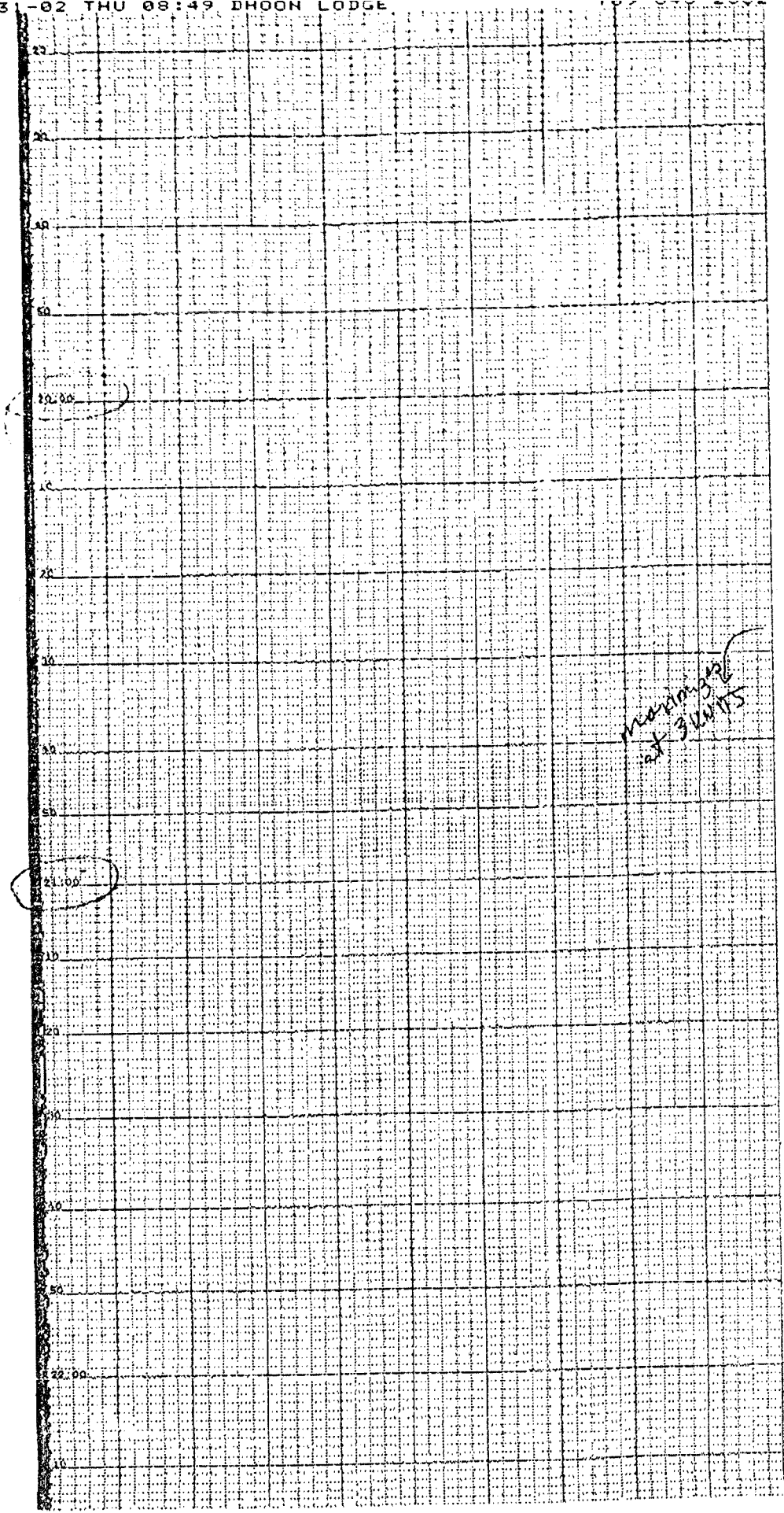


07.58

FROM
 FILLING
 TUBE
 ↓
 WATER

JVC-IH1

SURVEY
1.75





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FAX TRANSMITTAL COVER PAGE

Date: January, 2002
 To: George Langdon
 Of: Canadian Imperial Venture Corporation
 Fax #: 709 - 739 - 6605
 Pages (incl cover): 9 + 1
 File #: Harry's River Area: Indian Head #1

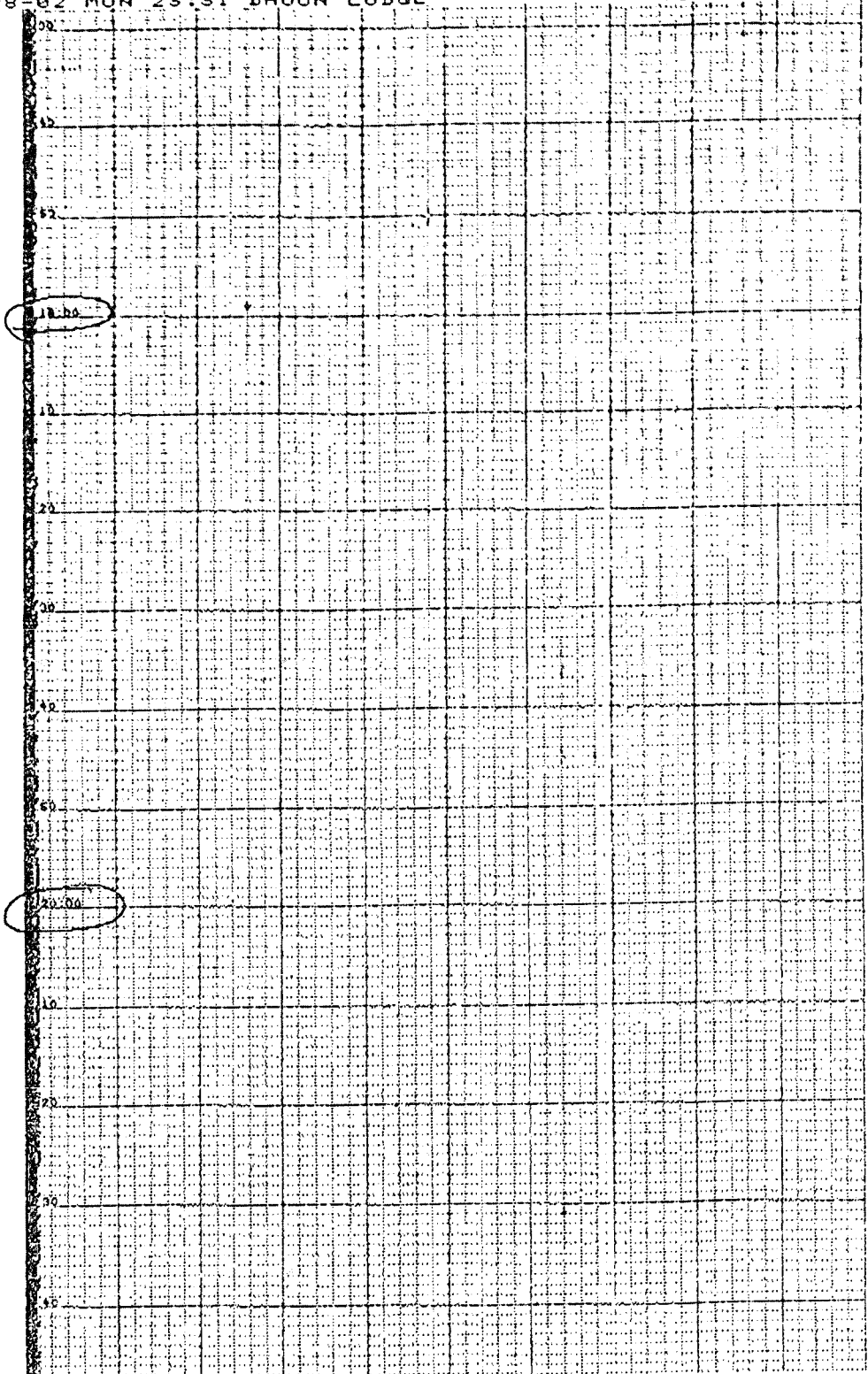
Gas logs from 19:30 January 29th
 through 19:00 January 30th (Gas 0-100 ppm through 10 pm)
 The increase in drilling rate to
 3.2-3.3m an hour corresponds to a
 3m section between 625m and 628m.
 This is slightly softer due to a decrease
 in mafic content (hornblende) and magnetite.
 Plagioclase and calcite are more abundant.
 See the lithology for more details.

Thanks,
 Kristina

From the desk of ...
Kristina Giles
 THREE-D GEOCONSULTANTS LTD.
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 Fredericton, NB Canada E3A 5G9
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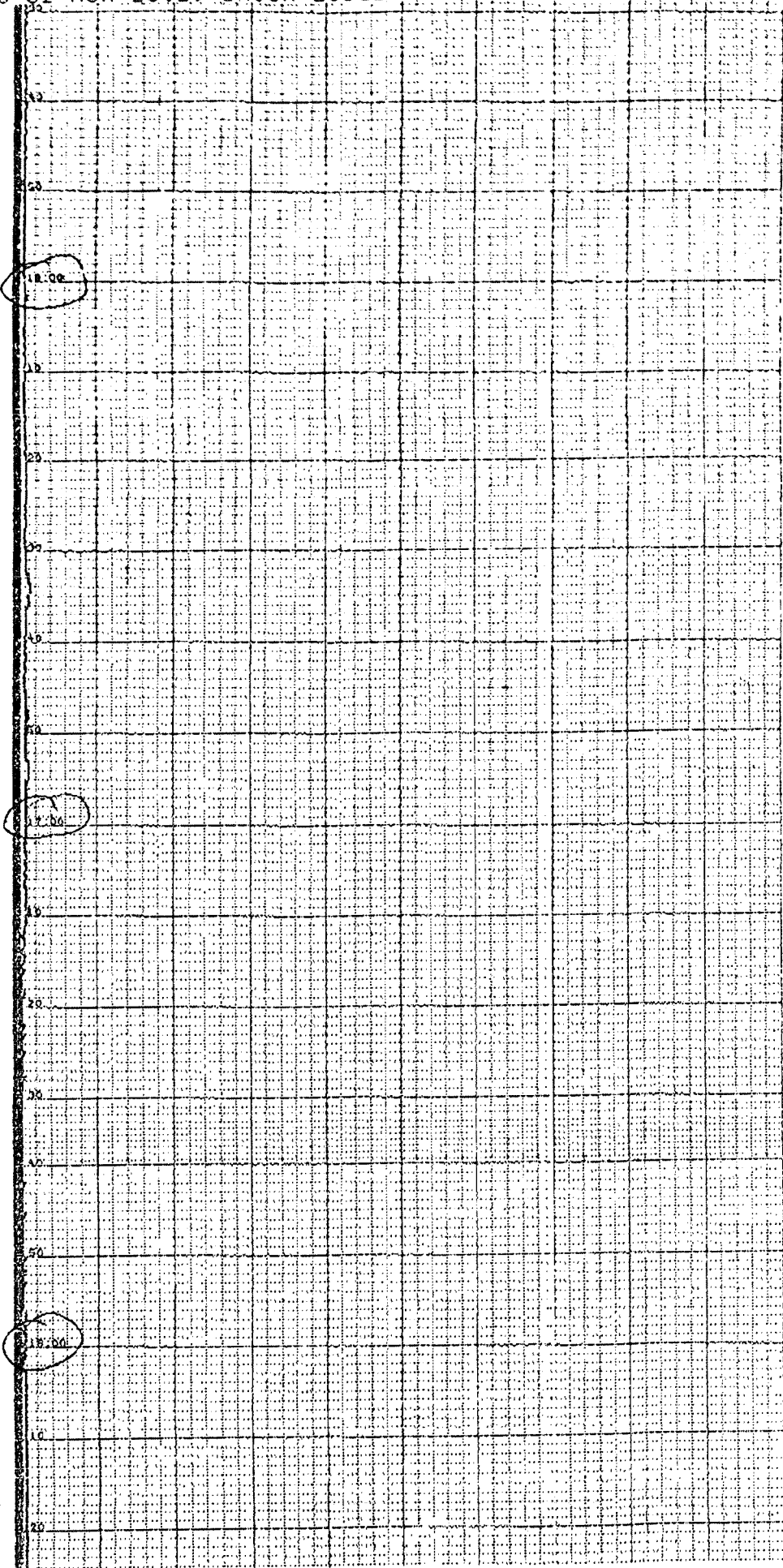


CVC-I#1



00
 10
 20
 30
 40

CVC-III

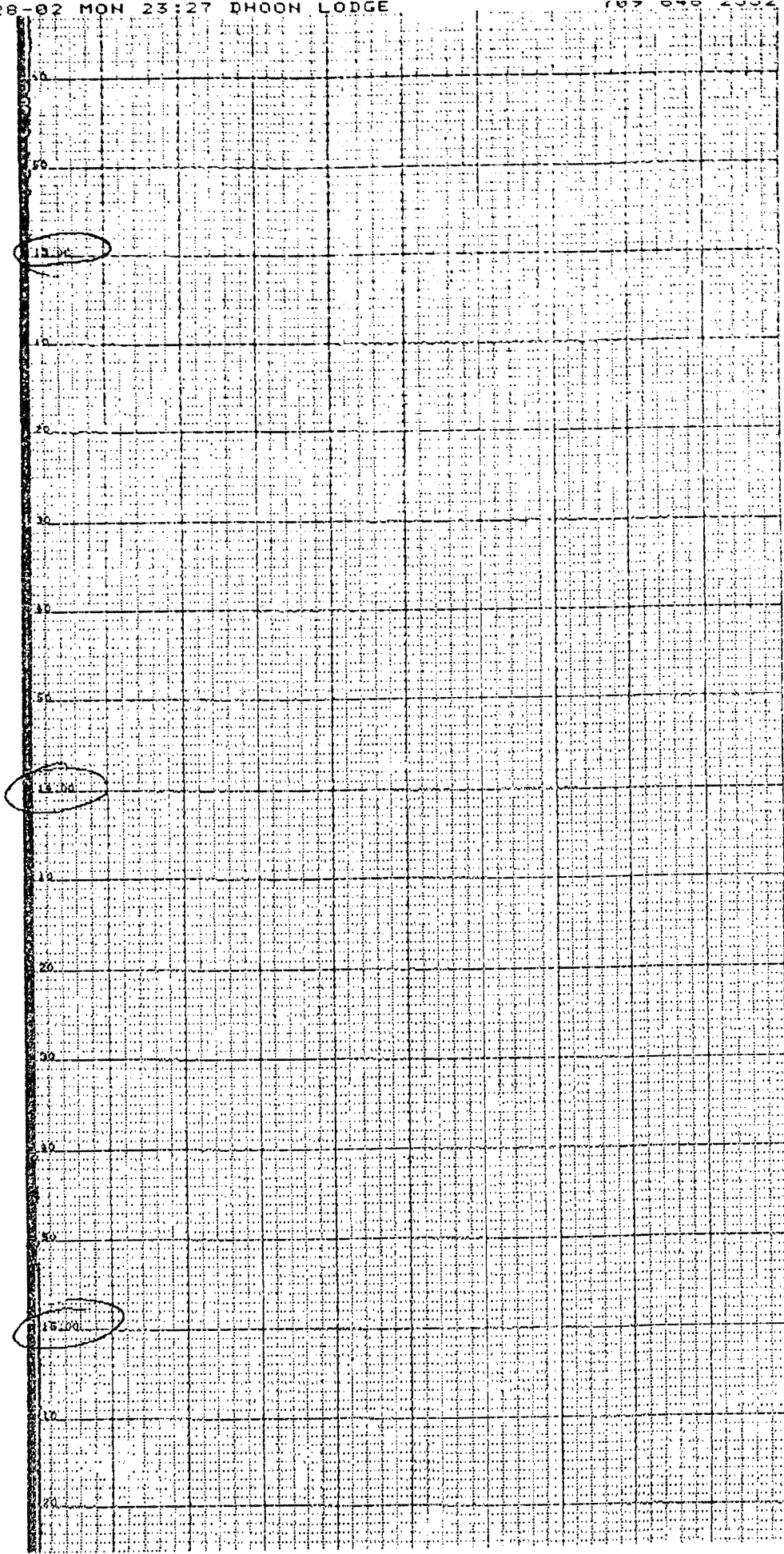


568.58m
ADDING
RODS

571.58m
PULLING
TUBE
+
SURVEY

DRILLING

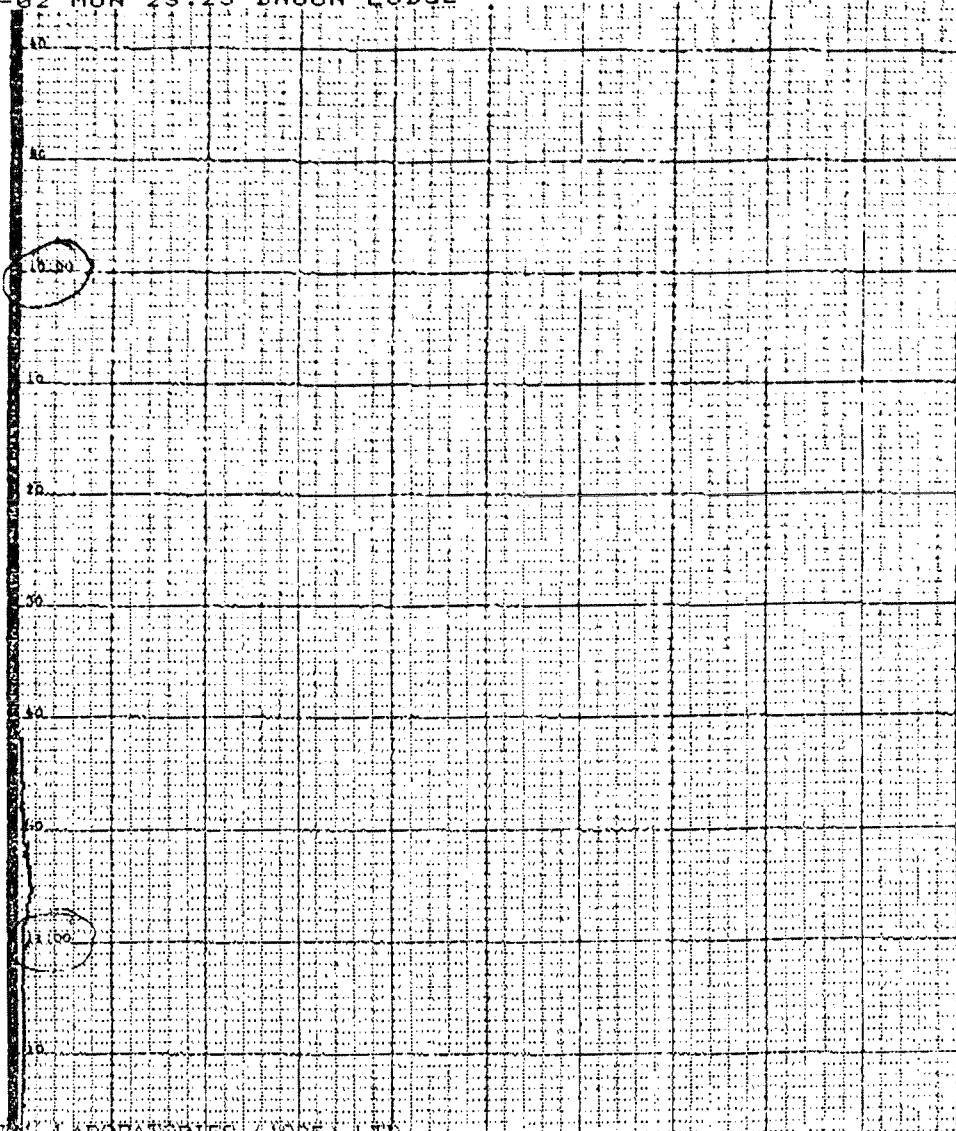
CINC-III



562.58m
 ADD ROD

565.58m
 PULLING
 TUBE

CIVCJH

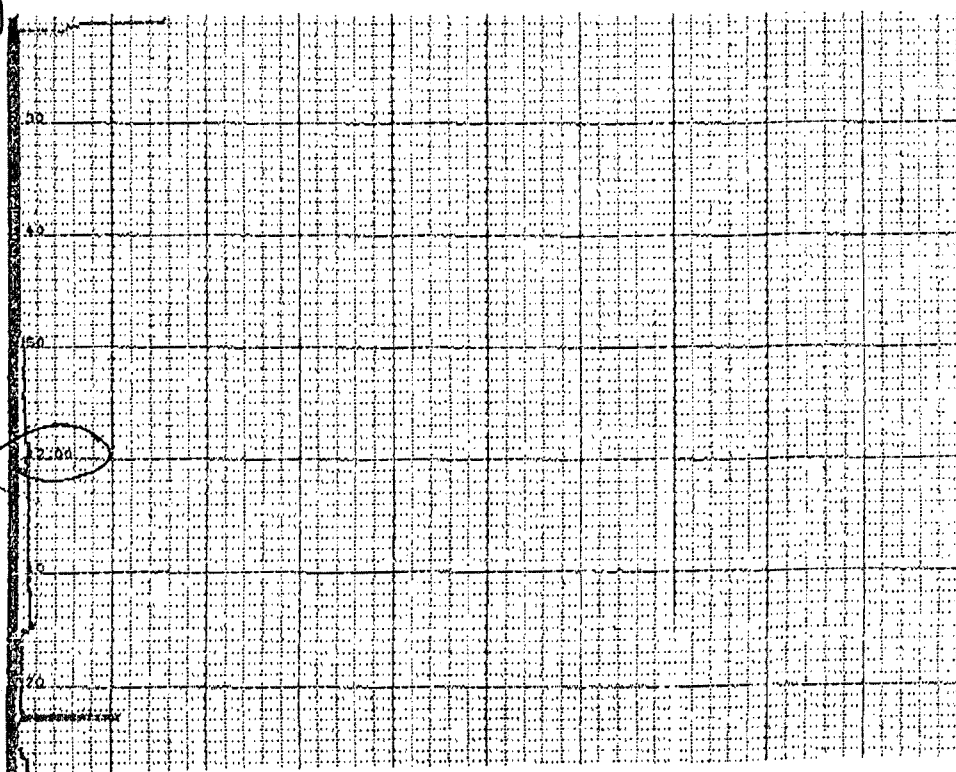


~~556.58~~

556.58
ADD ROD

CONTINENTAL LABORATORIES (1985) LTD.

POWER SHUT-DOWN



559.58
PULLED
TUBE

Date: January 28, 2002.

To: George Langdon

of: Canadian Imperial Ventures Corp.

Fax #: 709 - 739 - 6605

Pages: 5 + cover.

Re: Indian Head #1

George,

Here's today's gas log print-outs. As of 8:45 pm, we had reached ~ 574m with no change in drilling. The cored section beyond this evening's log was interbedded quartzite, gneiss and possibly anorthosite. It is still fractured @ 45° with some alteration but not like the earlier section; only occasionally are there 10 cm zones of highly crystalline, altered zones. I'll be calling you shortly.

Krustina

JVC-IH1

07.60

08.00

09.00

546.78m
ADDING
ROD

550.58m
PULLED
TUBE

553.58m
ADD ROD



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FAX TRANSMITTAL COVER PAGE

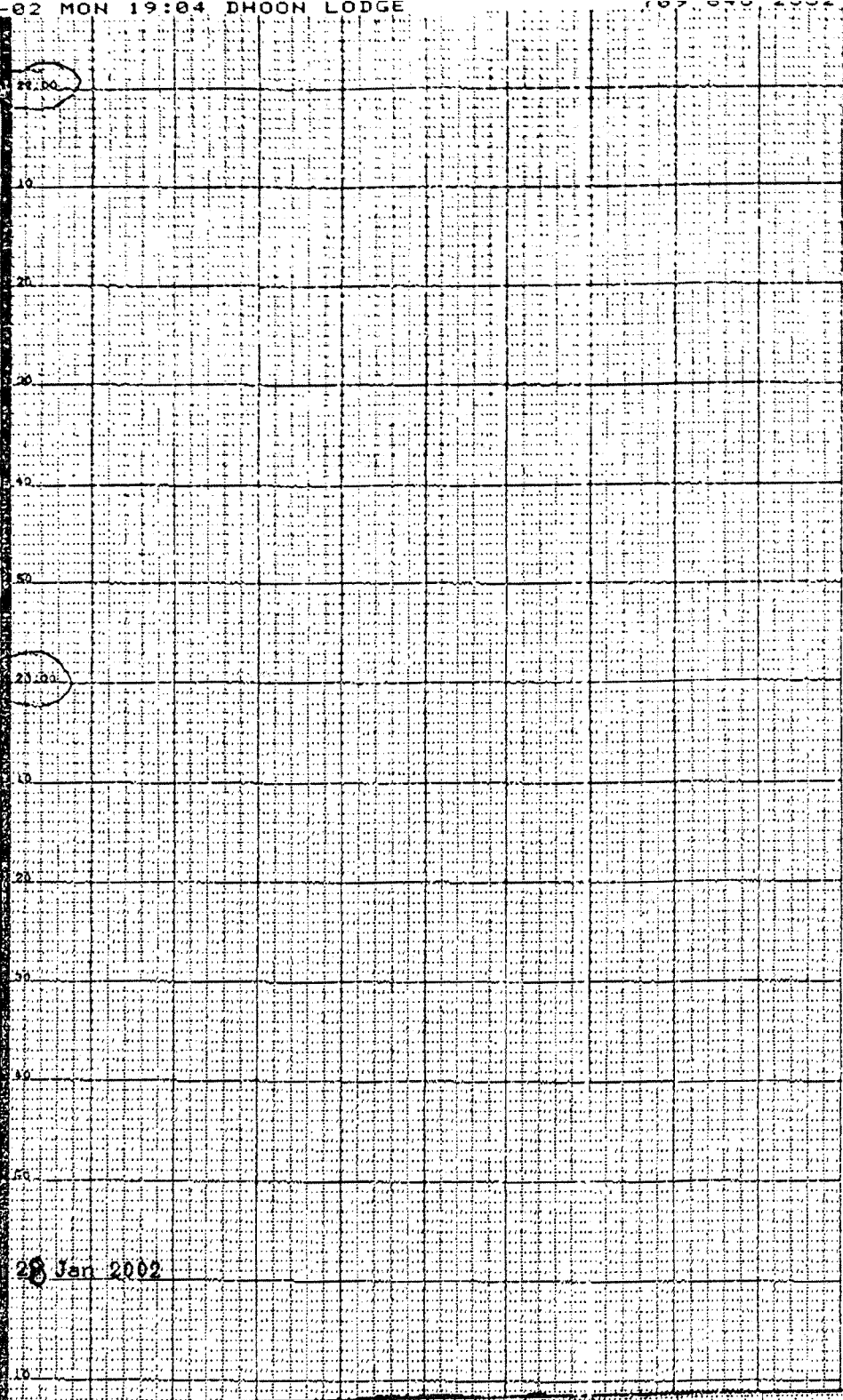
Date: January 28, 2002.
 To: George Langdon
 Of: Canadian Imperial Venture Corporation
 Fax #: 709 - 739 - 6605
 Pages (incl cover): 10
 File #: Harry's River Area: Indian Head #1

George,
 These are the gas logs since we started yesterday. I have transferred the Geolograph data so you can get an idea of R.O.P. and depth correlations, up to 8am this morning. I will do this for the day shift this evening.
 (The log has been emailed.)
 Kristina

From the desk of ...
Kristina Giles
THREE-D GEOCONSULTANTS LTD.
 PO Box 3133, Station B, 391 Brunswick Street
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QVC-IH1



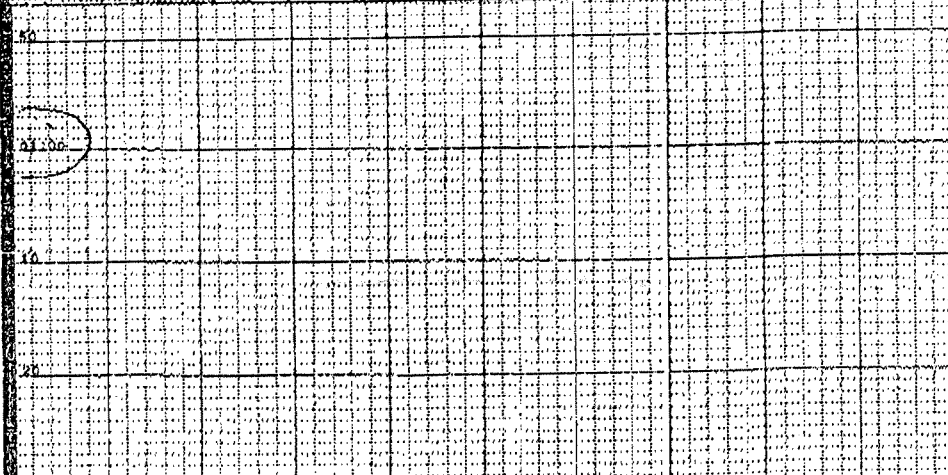
546.78m
BLOCKED

SURVEY
= 1.75°

BIT
GONE

TOOL

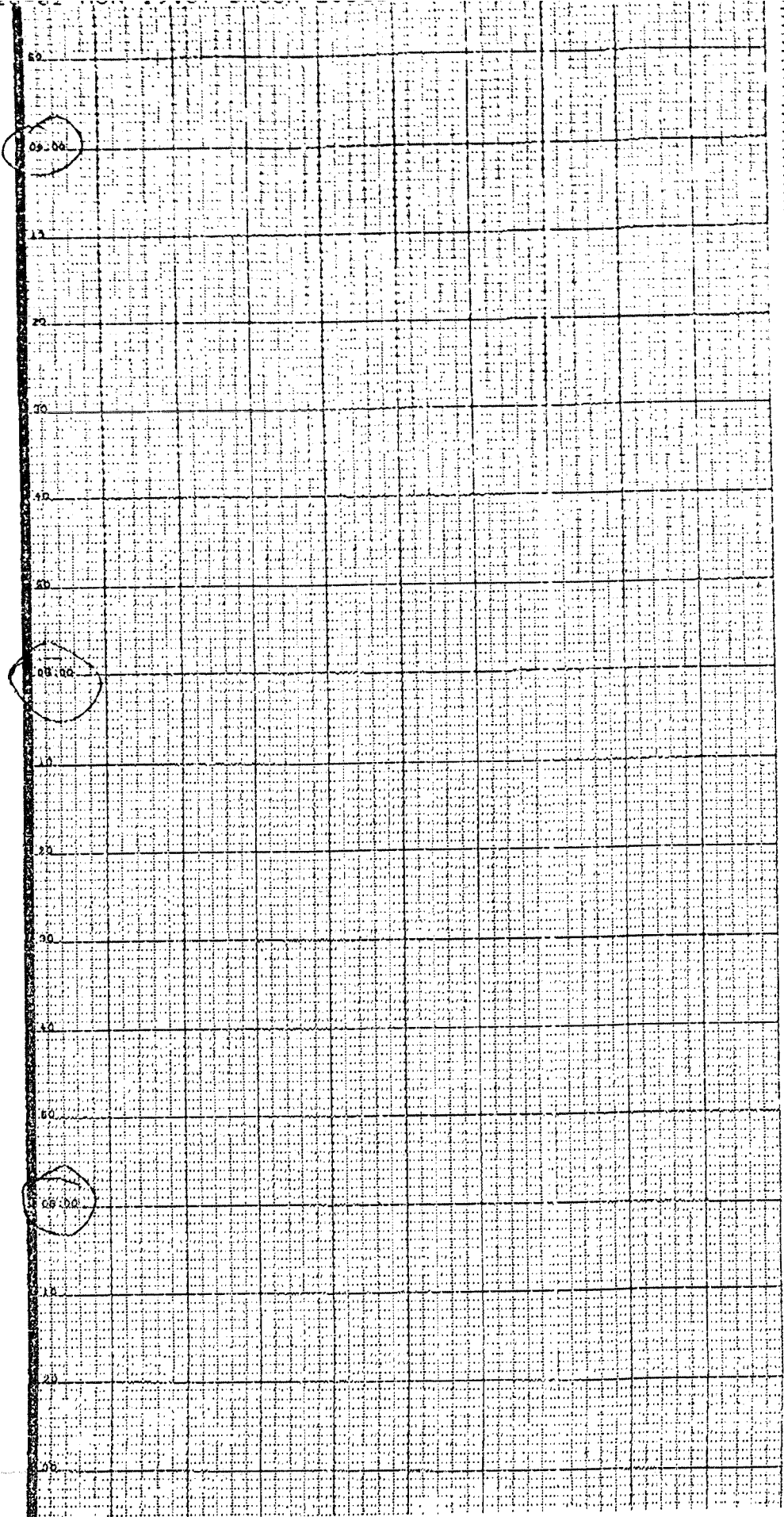
QVC-IH1

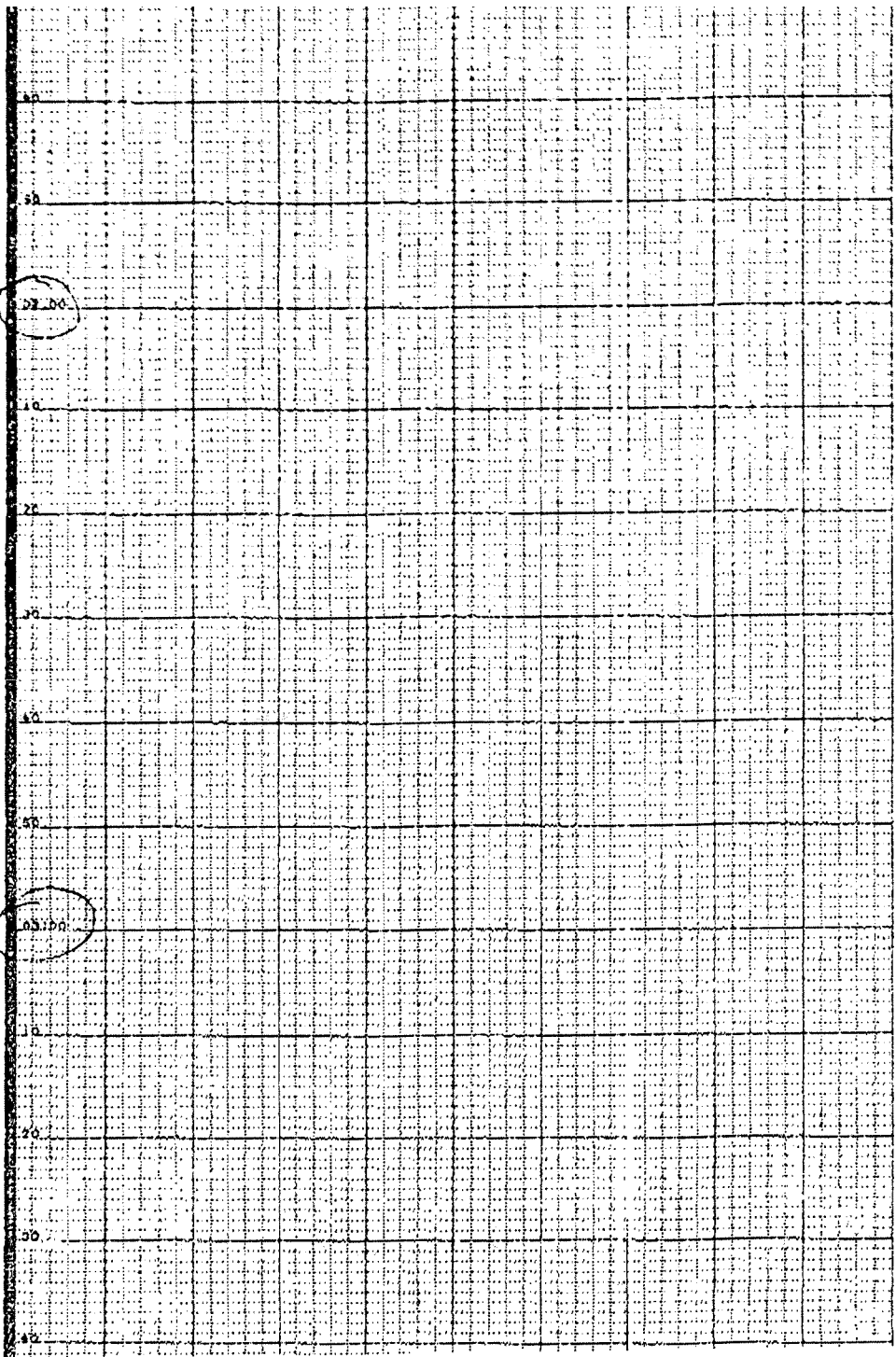


TOOL

LVC-141

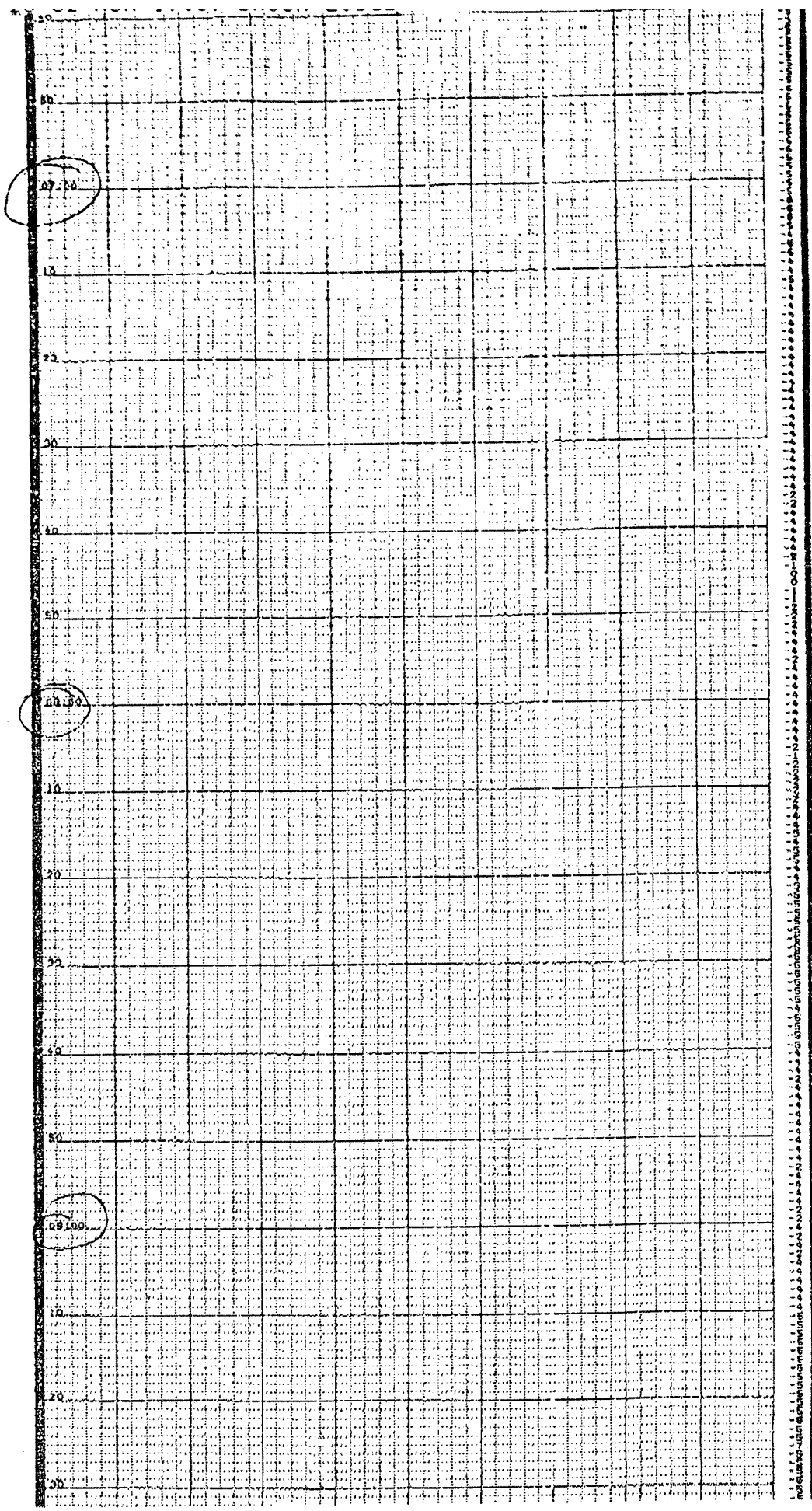
TOOTH



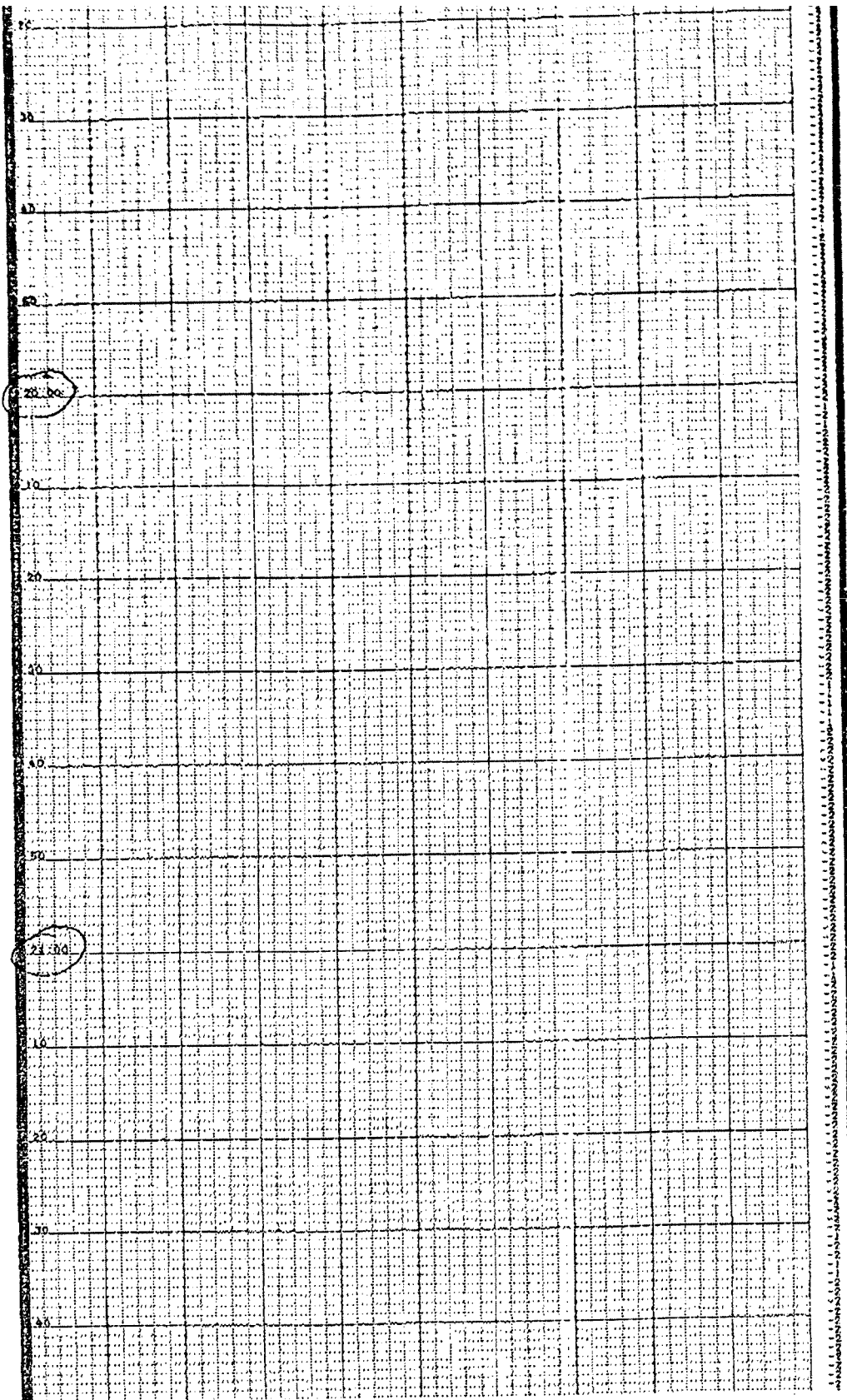


Vertical axis labels: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100

2VC-IH1



546.78m
ADDING
RCID



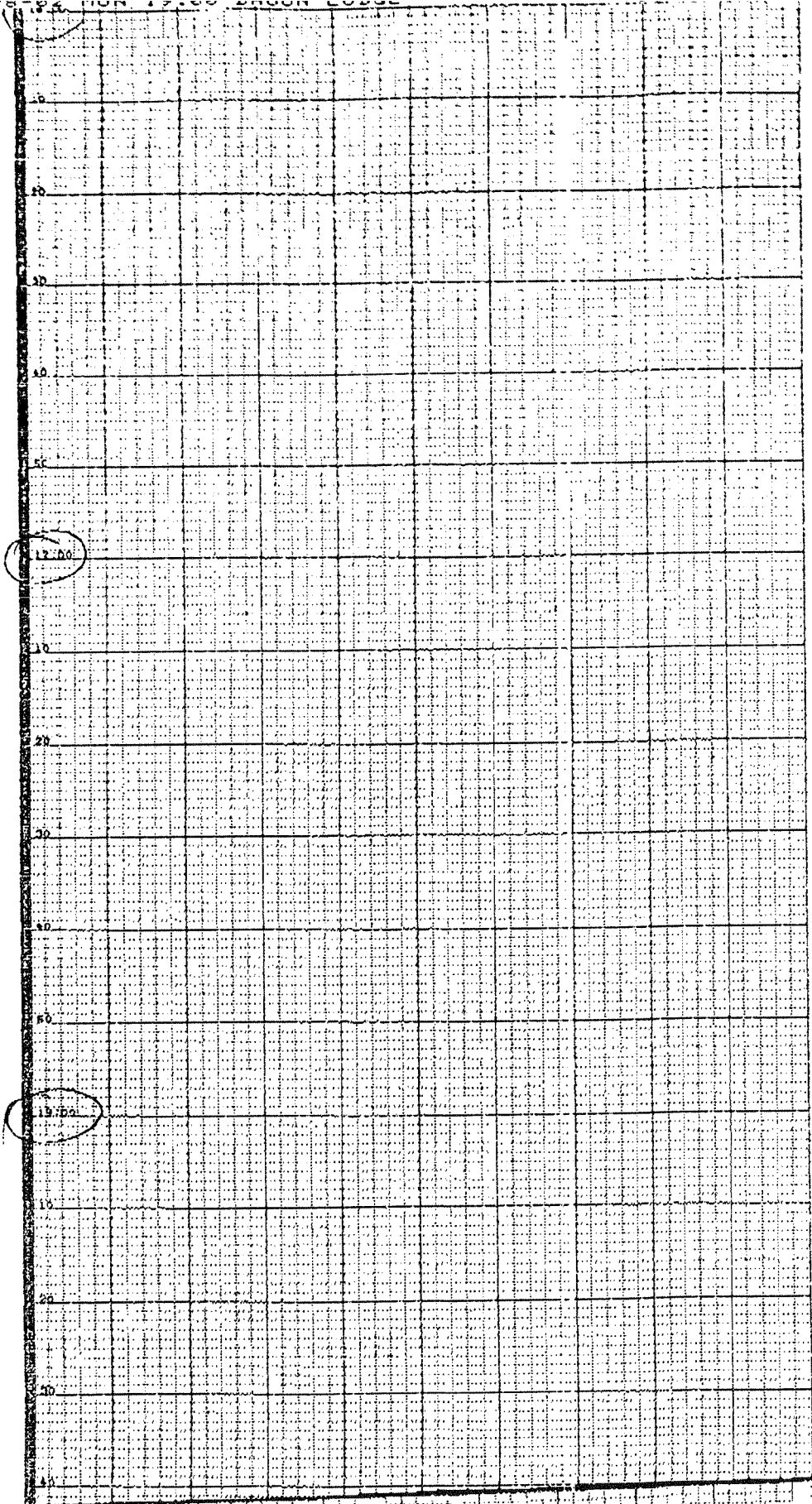
28.30

21.30

541.38m
ADDING
ROD

544.50m
PULLING
TUBE

CVC-IH1



12.00

13.00

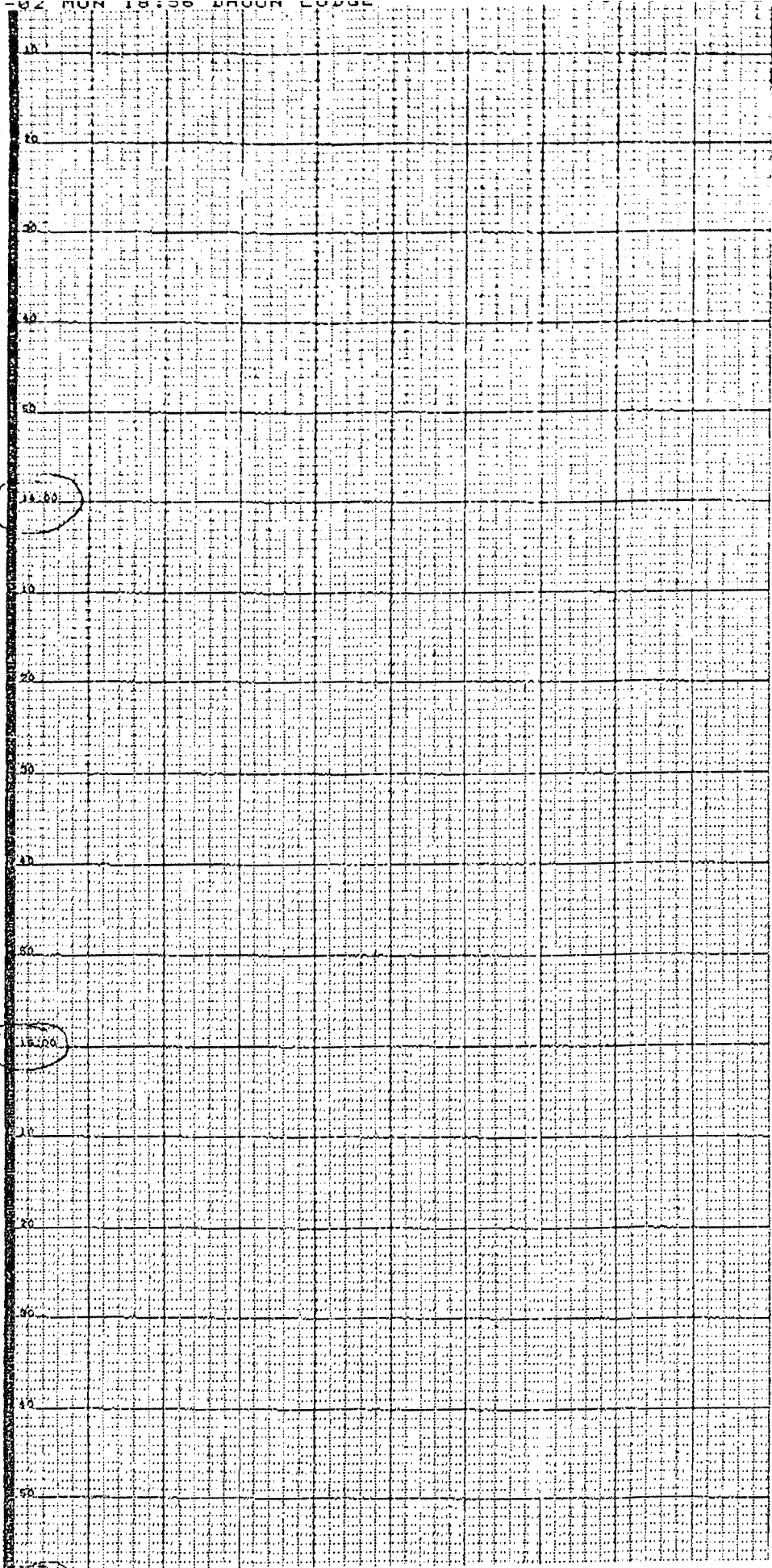
18.00

535.58
ADDING
ROD

538.58
PULLING
TUBE

CVC-IH1

CIVC-IH1



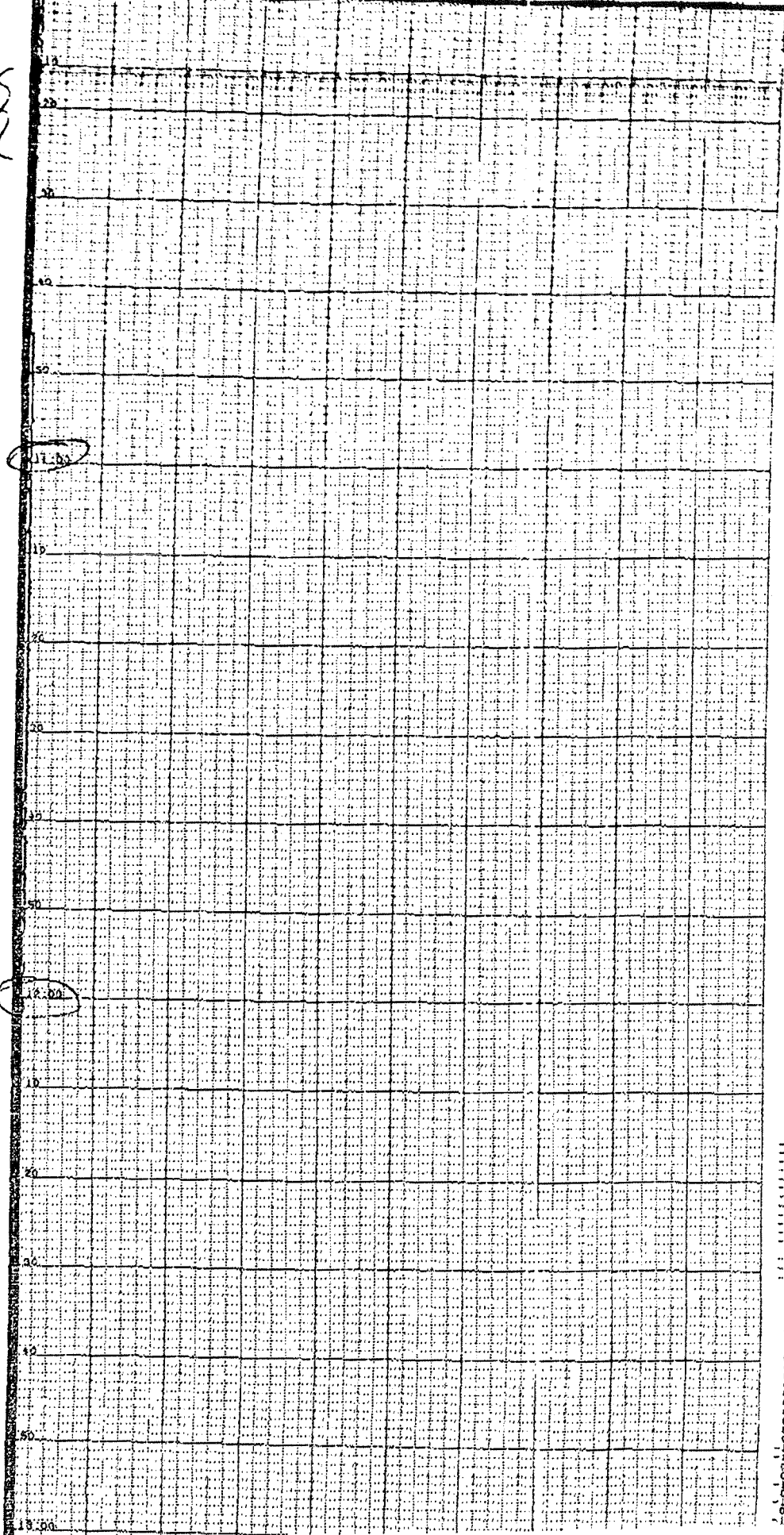
509.58m
 ADDING
 RED

532.58m
 PULLING
 TUBE

CVC-IH1

TIME GAP

~



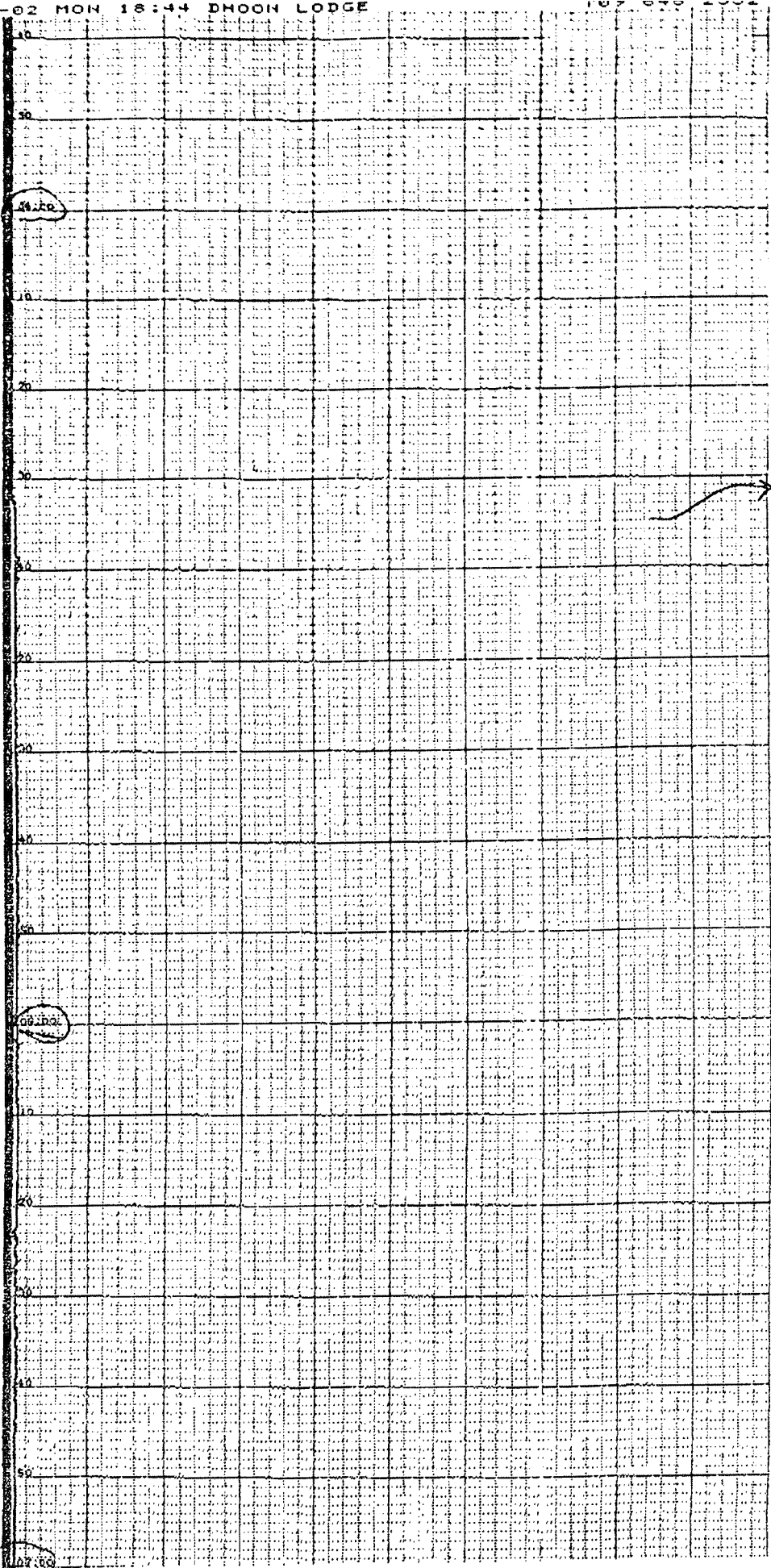
↑
SHIFT
CHANGE
↓ TIME(A)

← 523.5
DRILLING
↓

~~523.5~~
~~523.58~~
ADD ROD
523.58

526.58m
PULLING
TUBE

C1K-IH



TIME GAP →

514.58m

PULLING TUBE

DRILLING

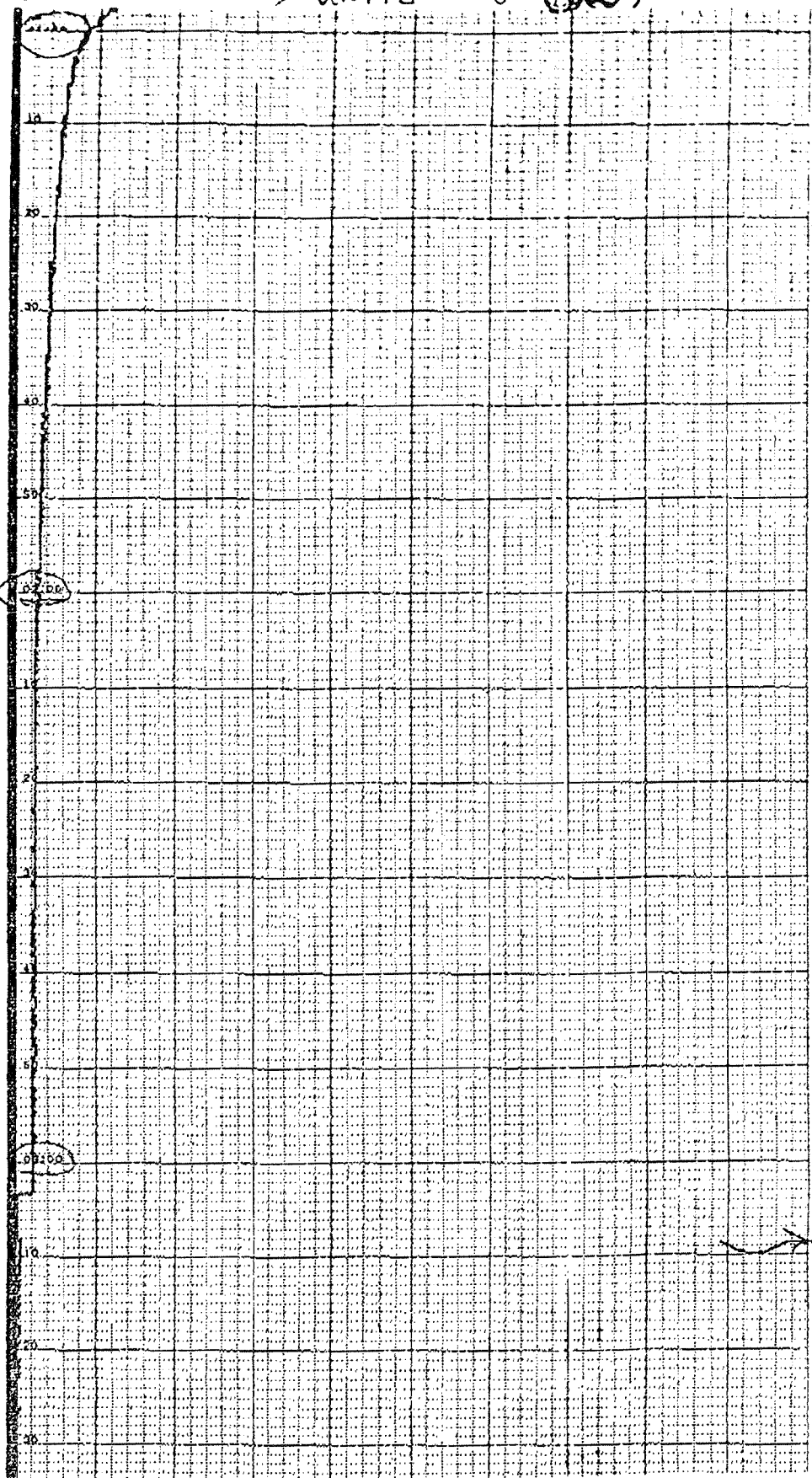


517.58m

ADDING ROD

Jan 26, 2002

0 50 → UNITS (0-500) 500



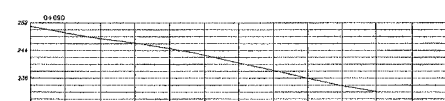
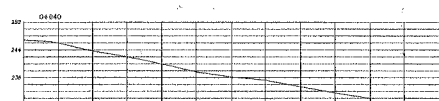
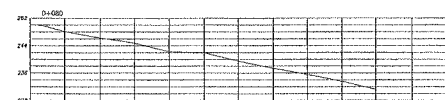
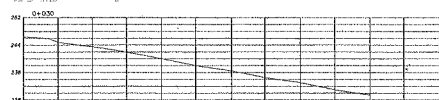
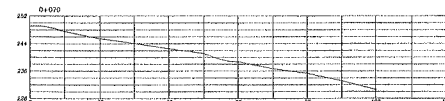
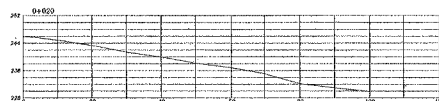
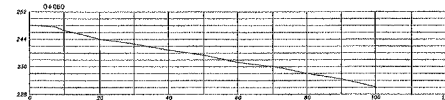
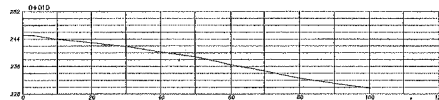
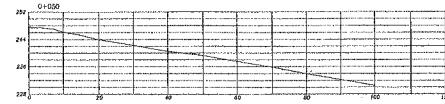
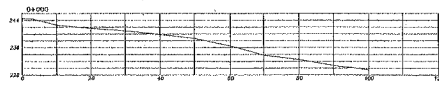
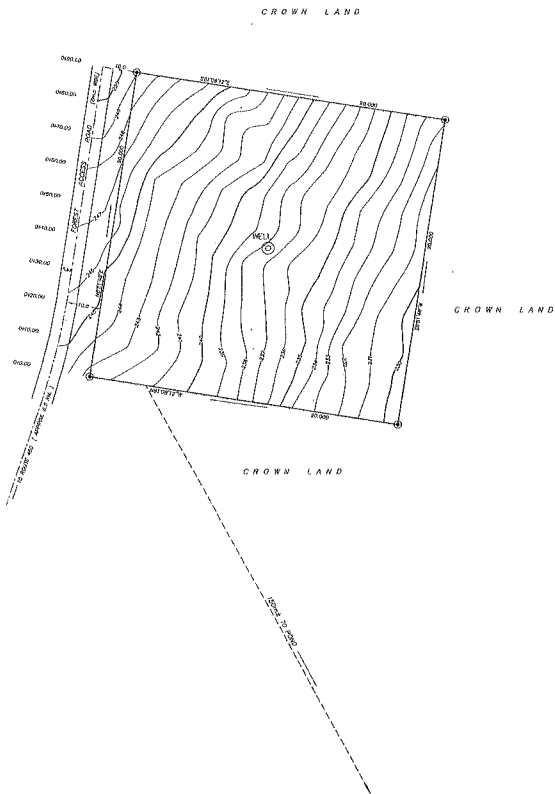
SYSTEM
INSTALLED
↓

508.58m
DRILLING
RESUMED
↓

511.58m

... Till

G. C. S. NORTH (NAD 83)
 U.T.M. ZONE 21



LEGEND

- CONTROL MONUMENT *
- PLACED IRON PIN ○
- FOUND IRON PIN ⊖
- POLE ON LIGHT STANDARD ●
- INDUMENT +
- PROPERTY DEALT WITH —
- FENCE POST FP #
- FENCE LINES —X—X—
- POWER-TELEPHONE LINES —•—•—
- EASEMENTS - - - - -
- CENTERLINE —

REFERENCE MONUMENT: 8504133 N 5 379 490.557
 E 394 815.775
 ELEV. 28.100m

COMBINED SCALE FACTOR: 0.999988

SCALE 1 : 500



METERS

NOTE:
 WELL (NAD 83) N 5 379 490.557
 E 394 815.775
 ELEV. 28.100m
 W 58 25 34.784" W 58 25 32.645"

YATES AND WOODS LTD. NEWFOUNDLAND LAND SURVEYORS CO-OP. BLDG., 5 PARK STREET P.O. BOX 434 CORNER BROOK FLD. A2H.6E3 TEL. 639-9177			
SURVEY PLAN OF LAND FOR CANADIAN IMPERIAL VENTURE CORP. BLACK DUCK SIDING, NEWFOUNDLAND			
SCALE: 1 : 500	DWG. NO. 01101-1	DRAWN BY E. CARAVAN	DATE: SEPT. 10, 2001.