WHITE—DIVISION OF WATER RESOURCES
CANARY—CLIENT'S COPY
PINK—WELL DRILLER'S COPY

STATE OF NEVADA
DIVISION OF WATER RESOURCES

WELL DRILLER'S REPORT

Please complete this form in its entirety

OFFICE USE ONLY
Log No. 31968
Permit No. 51847
Basin 230

PRINT OR TYPE ONLY

NOTICE OF INTENT NO. 3250

1. OWNER Bond Gold Bullfrog, Inc.
MAILING ADDRESS P.O. Box 519
Beatty, NV 89003

ADDRESS AT WELL LOCATION II-5

2. LOCATION NW ¼ SW ¼ Sec. 3 T 13 N/S R. 46 E Nye County
PERMIT NO. 51847 - Waiver 266 (Issued by Water Resources) | Parcel No. | Subdivision Name

3. TYPE OF WORK
New Well ☒ Recondition ☐
Deepen ☐ Other ☐

4. PROPOSED USE Mining
Domestic ☐ Irrigation ☐ Test ☐
Municipal ☐ ~~Industrial XX~~ Stock ☐

5. TYPE WELL
Cable ☐ Rotary XX
Other ☐

6. LITHOLOGIC LOG

Material	Water Strata	From	To	Thickness
Top soil; sands, gravel & clays mixed		0	15	
Mixed tight sand & coarse gravel w/some sandy clay w/ some boulders up to 6"		15	500	
Lost Circulation		500	515	
Sand, gravel & rock w/some clays		515	544	
Sand & gravel w/some silty clays, mixed colors		544	682	
Sand & gravel w/silty clays, tight formation, mixed color		682	1142	
Tight coarse sand to fine gravels w/silty clay streaks mixed colors		1142	1450	

Date started 10-27, 19 88
Date completed 12-10, 19 88

RECEIVED
JUL 10 1989
Div. of Water Resources
Branch Office - Las Vegas, NV

7. WELL TEST DATA

Pump RPM	G.P.M.	Draw Down	After Hours Pump

BAILER TEST
G.P.M. ..... Draw down ..... feet ..... hours
G.P.M. ..... Draw down ..... feet ..... hours
G.P.M. ..... Draw down ..... feet ..... hours

8. WELL CONSTRUCTION
Diameter 22 inches Total depth 1420 feet
..... inches
..... inches
Casing record
Weight per foot ..... Thickness
Diameter ..... From ..... To
..... inches ..... feet ..... feet
..... inches ..... feet ..... feet
..... inches ..... feet ..... feet
..... inches ..... feet ..... feet
..... inches ..... feet ..... feet
..... inches ..... feet ..... feet
Surface seal: Yes ☐ No ☐ Type
Depth of seal ..... feet
Gravel packed: Yes ☐ No ☐
Gravel packed from ..... feet to ..... feet

Perforations:
Type perforation
Size perforation
From ..... feet to ..... feet
From ..... feet to ..... feet
From ..... feet to ..... feet
From ..... feet to ..... feet
From ..... feet to ..... feet

9. WATER LEVEL
Static water level ..... feet below land surface
Flow ..... G.P.M. ..... P.S.I.
Water temperature ..... °F Quality

10. DRILLER'S CERTIFICATION
This well was drilled under my supervision and the report is true to the best of my knowledge.
Name Layne-Western Co., Inc. (Contractor)
Address P.O. Box 1326, Woodland, CA 95695 (Contractor)
Nevada contractor's license number issued by the State Contractor's Board 13647-C-23
Nevada contractor's driller's number issued by the Division of Water Resources
Nevada driller's license number issued by the Division of Water Resources, the on-site driller
Signed Curtis Blidsworth
By driller performing actual drilling on site or contractor
Date 6-6-89

(Rev. 11-85) USE ADDITIONAL SHEETS IF NECESSARY (O)-627

LOG OF BOREHOLE

~~Log 3450~~, Well #4

Log 31968

BOREHOLE ETW-II-5

PAGE 1 OF 4

LOC. or COORDS. NW 1/4 SW 1/4 Sec. 3 T. 13S. R. 46 E.

GROUND ELEV. ~3220

TOTAL DEPTH 1450 feet

BOREHOLE DIAM. 12 1/4" pilot 22" production

DRILLER Layne-Western

RIG Failing 3000

BIT(S) 12 1/4 tricone milltooth

FLUID Bentonite/polymer

	START	FINISH
DATE	10/27/88	11/4/88
TIME	0830	2230

GEOPHYS. LOG ✓ YES ___ NO

HOW LEFT Completed well

LOCATION

LOGGED BY

PROJECT

DEPTH	PENE. RATE	CIRC. RET	CIRC. LOSS	AIRLIFT Q (gpm)	MATERIAL	SYMBOL	DESCRIPTION and COMMENTS
0							Note: HSI personnel not on site continuously during drilling.
50							Multi-colored, angular to subangular, poorly sorted gravels with some sandy clays.
100							
150							
200							
250							Multi-colored gravels and rock fragments, angular to subangular, poorly sorted.
300							
350							
400							

LOG OF BOREHOLE

Well #4

Log 31968

BOREHOLE ~~ETW II~~-5

PAGE 2 OF 4

LOC. or COORDS. NW 1/4 SW 1/4 Sec. 3 T. 13 S. R. 46 E.

GROUND ELEV. ~3220

TOTAL DEPTH 1450 feet

BOREHOLE DIAM. 12 1/4" pilot 22" production

DRILLER Layne-Western

RIG Failing 3000

BIT(S) Tricone milltooth

FLUID Bentonite/polymer

	START	FINISH
DATE	10/27/88	11/9/88
TIME	0830	2230

GEOPHYS. LOG ✓ YES ___ NO

HOW LEFT Completed Well

DEPTH	PENE. RATE	CIRC. RET	CIRC. LOSS	AIRLIFT Q (gpm)	MATERIAL	SYMBOL	DESCRIPTION and COMMENTS
400							
							Dark red, black, gray, white, angular to subangular, poorly sorted, gravels and rock fragments with minor sands and clay
450							
500							500'-505' Lost circulation zone.
							Multi-colored, angular to subangular, poorly sorted gravels and rock fragments with some clay and silt.
550							
600							
650							Intermixed fine gravels and coarse sands, some clay and silt.
700							Multi-colored, angular to subangular, poorly sorted, clayey, sandy gravels. Clay is brown, plastic, sandy.
750							
800							

LOCATION

LOGGED BY

PROJECT

HYDRO-SEARCH RENO - DENVER - CONSULTING

LOG OF BOREHOLE

~~LOG 31968~~ WELL #7

BOREHOLE ETW II-5

Log 31968

PAGE 3 OF 4

LOC. or COORDS. NW 1/4 SW 1/4 Sec. 3 T. 13 S. R. 46 E.

GROUND ELEV. ~3220

TOTAL DEPTH 1450 feet

BOREHOLE DIAM. 12 1/4" pilot 22" production

DRILLER Layne-Western

RIG Failing 3000

BIT(S) Tricone milltooth

FLUID Bentonite/polymer

	START	FINISH
DATE	10/27/88	11/9/88
TIME	0830	2230

GEOPHYS. LOG ✓ YES ___ NO

HOW LEFT Completed well

DEPTH	PENE. RATE	CIRC RET	CIRC LOSS	AIRLIFT Q (gpm)	MATERIAL	SYMBOL	DESCRIPTION and COMMENTS
800							
850							Dark red, white, black, gray, angular to subangular, poorly sorted, clayey gravels with $CaCO_3$ cement.
900							Coarse-grained, moderately well sorted, sand with varying clay and gravel content.
950							
1000							Medium grained, angular to subangular, moderately well sorted, clayey sands
1050							
1100							
1150							
1200							

LOCATION

LOGGED BY

PROJECT

LOG OF BOREHOLE

Log 31968

~~Log 31501~~ Well # 1

BOREHOLE ETW II-5

PAGE 4 OF 4

LOC. or COORDS. NW 1/4 SW 1/4 Sec. 3 T. 13 S. R. 46 E.

GROUND ELEV.

TOTAL DEPTH 1450 feet

BOREHOLE DIAM. 12 1/4" pilot 22" production

DRILLER Layne-Western

RIG Failing 3000

BIT(S) 12 1/4 tricone milltooth

FLUID Bentonite/polymer

	START	FINISH
DATE	10/27/88	11/9/88
TIME	0830	2230

GEOPHYS. LOG ✓ YES ___ NO

HOW LEFT Completed Well

DEPTH	PENE. RATE	CIRC. RET	CIRC. LOSS	AIRLIFT Q (gpm)	MATERIAL	SYMBOL	DESCRIPTION and COMMENTS
1200							
1250							Multi-colored, medium to coarse-grained sands and fine gravel, subangular to subrounded.
1300							
1350							
1400							
1450							T.D. = 1450 ft.
1500							

LOCATION

LOGGED BY

PROJECT

LOG 31968
SAME AS LOG 31969

WELL #4 (ETW II-5)

WELL CONSTRUCTION SUMMARY

LOCATION or COORDS: NW 1/4 SW 1/4 Sec. 3 T. 13 S. R. 46 E.

ELEVATION: GROUND LEVEL 3220 (topo)
TOP OF CASING 3222

DRILLING SUMMARY:

TOTAL DEPTH 1450' (pilot)
BOREHOLE DIAMETER 22"

DRILLER Layne-Western
WOODLAND, CA

RIG Failing 3000
BIT(S) 12 1/4" tricone button and millitooth (pilot), 22" reamers
DRILLING FLUID Bentonite, Polymers

SURFACE CASING

CONSTRUCTION TIME LOG:

TASK	START DATE	START TIME	FINISH DATE	FINISH TIME
DRILLING:				
12 1/4" Pilot	10/27/88	0830	11/9/88	2230
Reaming 22"	11/14/88		11/30/88	2300
GEOPHYS. LOGGING:	11/10/88		11/10/88	
CASING:				
Production	12/1/88	0945	12/1/88	1845
FILTER PLACEMENT:	12/2/88	0230	12/3/88	0100
CEMENTING:				
DEVELOPMENT:	12/3/88	0100	12/5/88	1440
OTHER:				

WELL DESIGN:

BASIS: GEOLOGIC LOG ✓ GEOPHYSICAL LOG ✓

CASING STRING(S): C=CASING S=SCREEN

+2	–	677	C1	1159	–	1200	C2
677	–	878	C2	1200	–	1279	S1
878	–	958	S1	1279	–	1320	C2
958	–	1039	C2	1320	–	1360	S1
1039	–	1099	S1	1360	–	1400	S2
1099	–	1139	C2	1400	–	1420	C1
1139	–	1159	S1		–		

CASING: C1 .3125" wall thick 16" O.D. BLANK
C2 .3125" wall thick 16" O.D. Perf
C3
C4

SCREEN: S1 16" O.D. 80 slot .3125" wall thickness
S2 16" O.D. 100 slot .25" wall thickness
S3
S4

CENTRALIZERS 1415, 1165, 1005, 803, 600, 431, 230, 40

FILTER MATERIAL 3/4" - 1/4 gravel

CEMENT 0-50'
3' plug from 1417'-1420'

OTHER

WELL DEVELOPMENT

Swabbed, bailed

400 lbs sodium hexametaphosphate injected with water

COMMENTS:

static water level 687' 12/5/88

LOCATION Amargosa Valley
PERSONNEL KAK, KJ, GAE, KRC
PROJECT Boro Gold 15114 Ten 22 10/70-11

Log 31968

WELL ETW II-5

WELL CONSTRUCTION SUMMARY

LOCATION or COORDS: NW 1/4 SW 1/4 Sec. 3 T. 13 S. R. 46 E.

ELEVATION: GROUND LEVEL 3220 (+ [illegible])

TOP OF CASING 3222

DRILLING SUMMARY:

TOTAL DEPTH 1450' (pilot)

BOREHOLE DIAMETER 22"

DRILLER Layne-Western Woodland, CA

RIG Failing 3000

BIT(S) 12 1/4" tricone button and milltooth (pilot), 22" reamers

DRILLING FLUID Bentonite, Polymers

SURFACE CASING

CONSTRUCTION TIME LOG:

TASK	START DATE	START TIME	FINISH DATE	FINISH TIME
DRILLING:				
12 1/4" Pilot	10/27/88	0830	11/9/88	2230
Reaming 22"	11/14/88		11/30/88	2300
GEOPHYS. LOGGING:	11/10/88		11/[illegible]/88	
CASING:				
Production	12/1/88	0915	12/1/88	1845
FILTER PLACEMENT:	12/2/88	0130	12/3/88	[illegible]
CEMENTING:				
DEVELOPMENT:	12/3/88	0900	[illegible]	1440
OTHER:				

WELL DESIGN:

BASIS: GEOLOGIC LOG ✓ GEOPHYSICAL LOG ✓

CASING STRING(S): C=CASING S=SCREEN

			1159	1200	C2
+2	677	C1	1200	1279	S1
677	878	C2	1279	1320	C2
878	958	S1	1320	1360	S1
958	1039	C2	1360	1400	C2
1039	1099	S1	1400	1420	C1
1099	1139	C2			
1139	1159	S1			

CASING: C1 .3125" wall thick 16" O.D. [illegible]

C2 .3125" wall thick 16" O.D. [illegible]

C3

C4

SCREEN: S1 16" O.D. 80 [illegible]

S2 16" O.D. [illegible] .25" wall [illegible]

S3

S4

CENTRALIZERS 1415, 1165, 1005, 803, 6[illegible] 431, 230, 40

FILTER MATERIAL 3/4" - 1/4" [illegible]

CEMENT 0-50'

3' plug from 1417'-1420'

OTHER

WELL DEVELOPMENT

Swabbed, bailed

400 lbs sodium hexameta phosphate injected with water

COMMENTS:

Static water level 687' 12/5/88

RECEIVED

JUL 10 1989

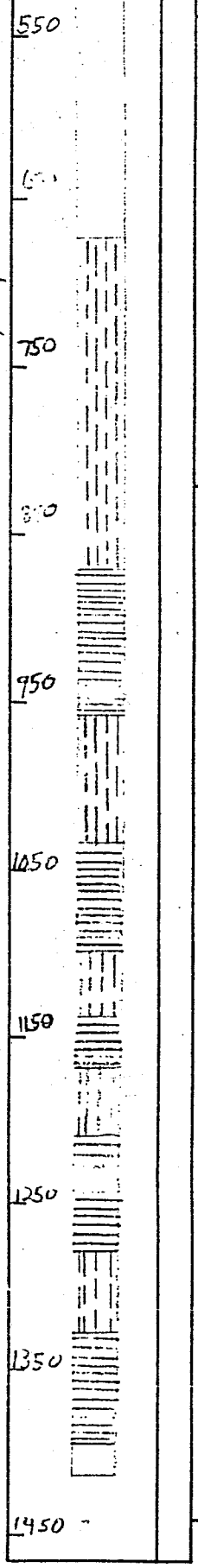
Div. of Wat[illegible]

Branch Offic[illegible]

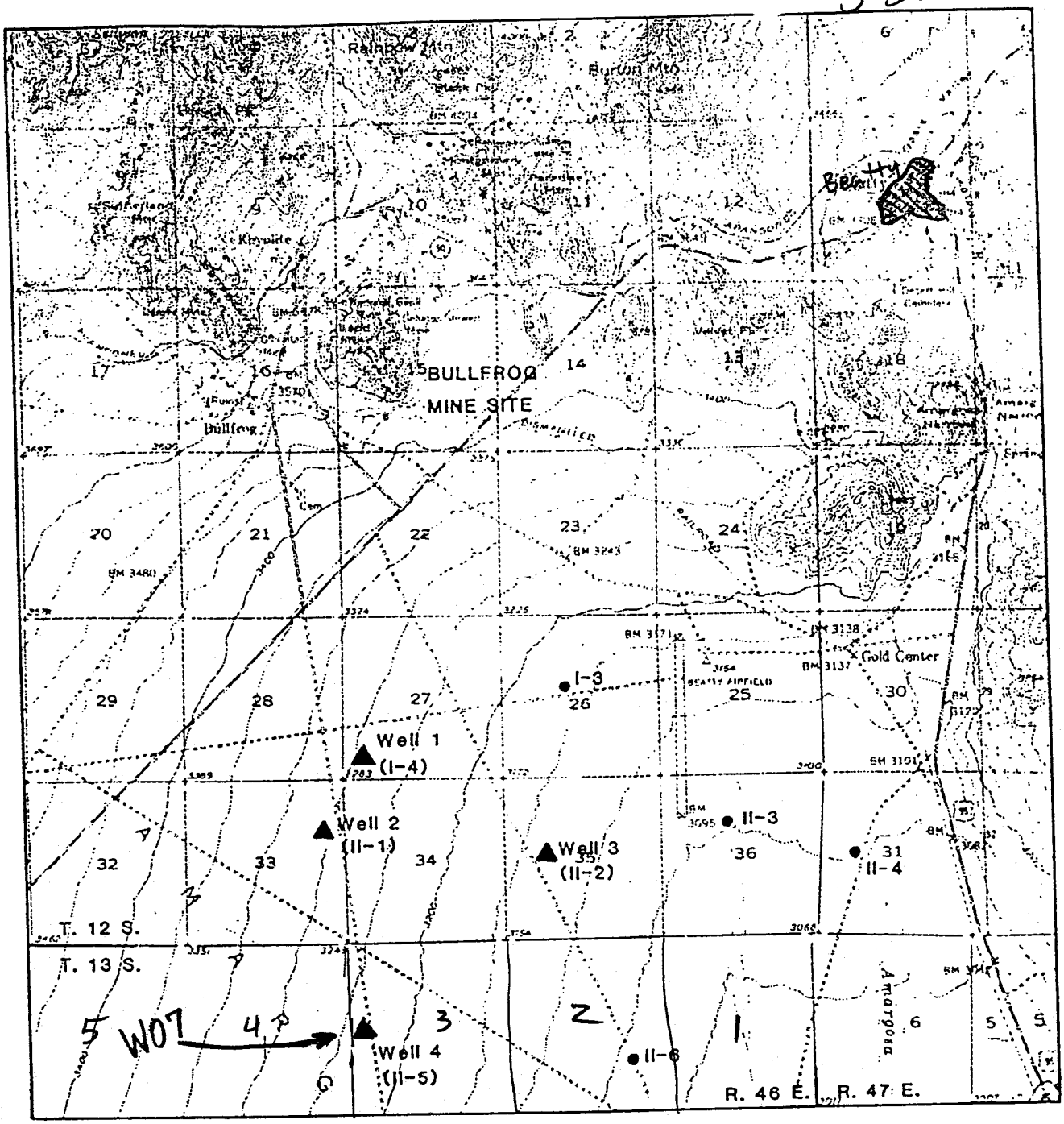
LOCATION Aerojet Valley

PERSONNEL [illegible], RJJ, GAF, KRC

PROJECT Bond Gas 13 [illegible]



Log 31968



Base Map: Bullfrog NV/CA and Bare Mtn., Nevada
15' Topographic quadrangles

EXPLANATION

▲ Well 1 (I-4) Production well

● I-1 Permitted Site

SCALE

0 1 2 miles

N

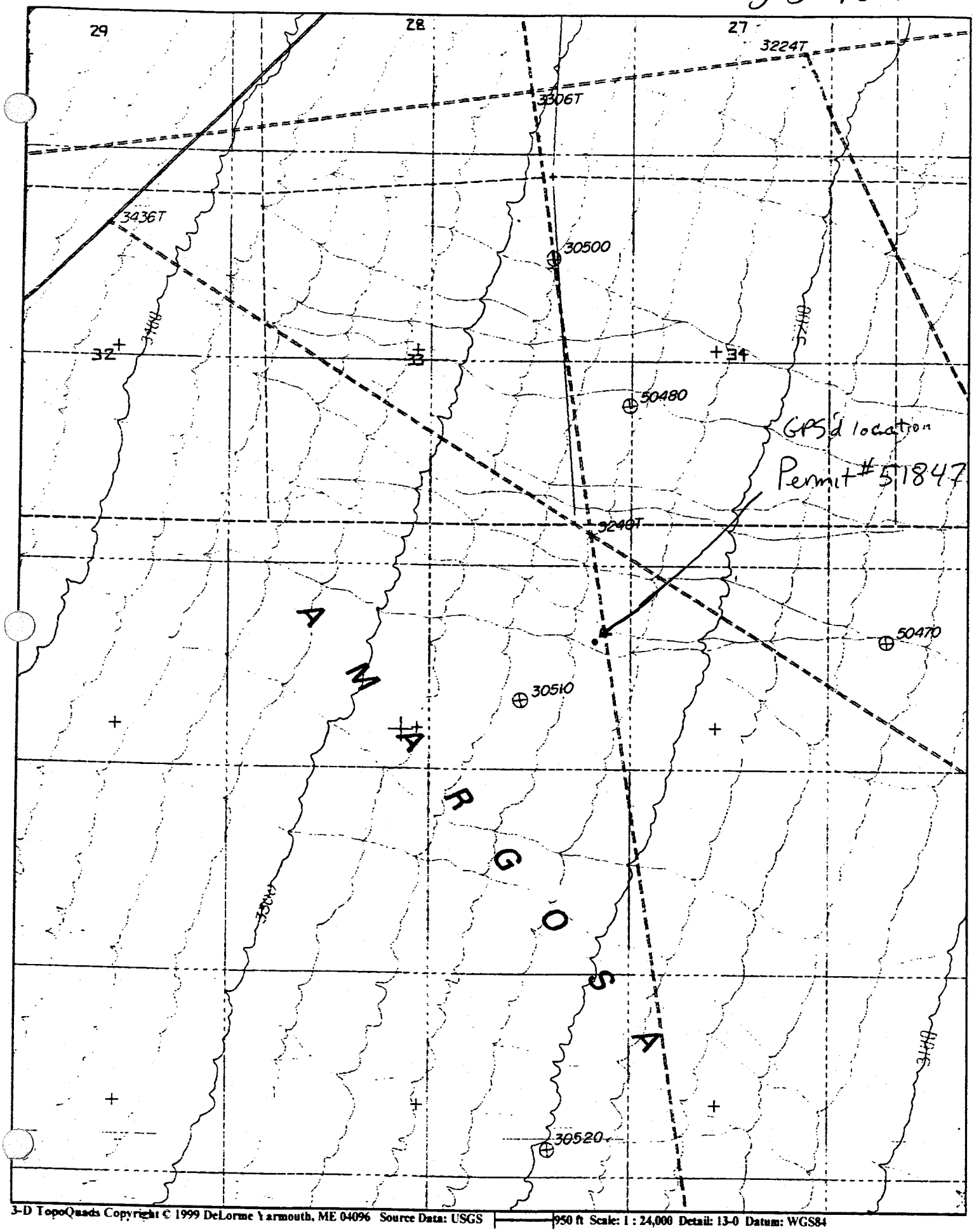
BULLFROG PROJECT
EXPLORATION DRILLING SITES
NYE COUNTY, NEVADA
BOND GOLD - BULLFROG, INC.

PROJECT 17691-89	REVISIONS
DATE June 1989	

Hydro-Search, Inc.
HYDROLOGISTS-GEOLOGISTS-ENGINEERS
MILWAUKEE • DENVER • RENO

FIGURE 1

Log 31968



3-D TopoQuads Copyright © 1999 DeLorme Yarmouth, ME 04096 Source Data: USGS 950 ft Scale: 1 : 24,000 Detail: 13-0 Datum: WGS84

Beatty Water & Sanitation-WC

BARBOUR

Well Surveying Corporation

(805) 482-1988

COMPANY	ST.JOE BULLFROG (HYDROSEARCH)		
WELL	WELL #4 II-5		
FIELD	BEATTY		
COUNTY	NYE	STATE	NEVADA
Location		Other Services	E-LOG
Sec.	Twp.	Rge.	
Permanent Datum	G.L.	Elev.	Elev. KB
Log Measured From	G.L.	Ft Above Perm. Datum	D F
Drilling Measured From	G.L.		G L

Date	11-10-88			
Run No	ONE			
Depth—Driller	1450'			
Depth—Logger	1450'			
Btm Log Inter				
Top Log Inter				
Casing—Driller	@	@	@	@
Casing—Logger				
Bit Size	12 1/4			
Type Fluid in Hole	GEL			
Dens | Visc	|	|	|	|
pH | Fluid Loss	| ml	| ml	| ml	| ml
Source of Sample	DITCH		Cm 1721	
R_m @ Meas Temp	@ °F	@ °F	@ °F	@ 77 °F
R_{mf} @ Meas Temp	@ °F	@ °F	@ °F	@ °F
R_{mc} @ Meas Temp	@ °F	@ °F	@ °F	@ °F
Source R_{mf} R_{mc}	|	|	|	|
R_m @ BHT	@ °F	@ °F	@ °F	@ °F
Time Since Circ				
Max Rec Temp	°F @	°F @	°F @	°F @
Equip | Location				
Recorded By	PAUL WEATHERFORD			
Witnessed By	JERRY EYKELBOSH			

Service Ticket No		Remarks	
Change in Mud Type or Additional Samples			
Date | Sample No	11-10-88		
Depth—Driller	1450'		
Type Fluid in Hole	GEL		
Dens | Visc			
ph | Fluid Loss		ml	
Source of Sample	DITCH		
R_m @ Meas Temp	@	°F	@ °F
R_{mf} @ Meas Temp	@	°F	@ °F
R_{mc} @ Meas Temp	@	°F	@ °F
Source R_{mf} | R_{mc}	|		
R_m @ BHT	@	°F	@ °F
R_{mf} @ BHT	@	°F	@ °F
R_{mc} @ BHT	@	°F	@ °F
C_m @ Meas Temp	1721 @ 77°F		@ °F

Type Log	Depth	Horizontal Scale
SP	1450'	5 mV/DIV
16" NORMAL	1450'	50 OHM/DIV
64" NORMAL	1450'	50 OHM/DIV
6' LATERAL	1450'	50 OHM/DIV

EQUIPMENT DATA

Run No	Tool Type and No	Pad Type	Tool Position	Other
ONE	ELP-41277		free	

All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees.

VERTICAL SCALE 2" = 100' 5" = 100' 10" = 100'

S.P. MV	DEPTH (FT)	LOG/SCALE	LOG/SCALE
← 5 ← +		16"NORMAL 50	6'LATERAL 50
		64"NORMAL 50	