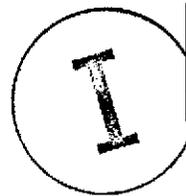


STATE OF NEVADA
DIVISION OF WATER RESOURCES
WELL DRILLER'S REPORT



OFFICE USE ONLY 107706

Log No. _____
Permit No. _____
Basin 419

PRINT OR TYPE ONLY
DO NOT WRITE ON BACK

Please complete this form in its entirety in accordance with NRS 534.170 and NAC 534.340

NOTICE OF INTENT NO. _____ 11973

1. OWNER City of Elko ADDRESS AT WELL LOCATION N/A
MAILING ADDRESS 1755 College Ave, Elko, NV 89801
Subdivision Name: N/A County: Elko

2. LOCATION NE 1/4 NE 1/4 Sec 30 T 35N N/S R 56 E Latitude N40°53.744 UTM E NAD 27
PERMIT/WAIVER No. 76774T 006-320-010 Longitude W115°42.301 N NAD 83/WGS 84

3. WORKED PERFORMED
 New Well Replace Recondition
 Deepen Other

4. PROPOSED USE
 Domestic Irrigation Test Monitor
 Municipal/Industrial Stock

5. WELL TYPE
 Cable Rotary RVC
 Air Other

6. LITHOLOGIC LOG

Material	Water Strata	From	To	Thick-ness
Sand and Clayey Material		0	60	60
Gravels and brownish sandy materia	25	60	100	40
Course Gravels and Sand		100	160	60
Small to med. Gravels and sand		160	240	80
Reddish brown course gravels		240	300	60
Mixed course and small gravels		300	350	50
Fine material with Course gravels		350	400	50
Course gravel and sand w/clay		400	450	50
Grey gravel and course sand		450	500	50
Red Volcanic Formation		500	550	50
Red Volcanic Formation		550	617	67

N 40.895784
W 115.704111 NAD83

9. WELL CONSTRUCTION

Depth Drilled	617	Feet	Depth Cased	480	Feet
HOLE DIAMETER (BIT SIZE)					
	From		To		
36	Inches	0	Feet	60	Feet
28	Inches	60	Feet	485	Feet
18	Inches	485	Feet	617	Feet

CASING SCHEDULE

Size O.D. (Inches)	Weight/Ft. (Pounds)	Wall Thickness (Inches)	From (Feet)	To (Feet)
30	118	.375	0	60
16 5/8	64	.375	0	480

Perforations:

Type of perforation Wire Wrap Screen
Size of perforation 0.08

From 180 feet to 260 feet
From 280 feet to 460 feet
From _____ feet to _____ feet
From _____ feet to _____ feet

Annular Seal: Yes No

Neat Cement 0 to 110 Pumped Poured
 Cement Grout 485 to 617 Pumped Poured
 Concrete Grout _____ to _____ Pumped Poured
 ≥30% Bentonite Grout _____ to _____ Pumped Poured

Gravel Pack: Yes No 110 to 485 Pumped Poured
Type: 4/12 sand

Bentonite Chips: Yes No _____ to _____ Pumped Poured
Type: _____

Date started: 15-May _____ 20 08
Date completed: 17-Jun _____ 20 08

7. Water Level
Static water level: 35.22 feet below land surface
Artesian Flow: _____ G.P.M. _____ P.S.I.
Water Temperature: _____ °F
Quality: _____

8. WELL TEST DATA

TEST METHOD:	G.P.M.	Draw Down (Feet Below Static)	Time (Hours)
<input type="checkbox"/> Bailor <input checked="" type="checkbox"/> Pump <input type="checkbox"/> Air Lift			
<u>35.22</u>	<u>1000</u>	<u>27.51</u>	<u>3.5</u>
<u>Step Test</u>	<u>1500</u>	<u>45.9</u>	<u>4.25</u>
	<u>2200</u>	<u>70.1</u>	<u>4</u>
	<u>2600</u>	<u>88.3</u>	<u>4</u>
<u>Constant Rate</u>			
<u>43.42</u>	<u>2200</u>	<u>79.03</u>	<u>72</u>

10. DRILLER'S CERTIFICATION

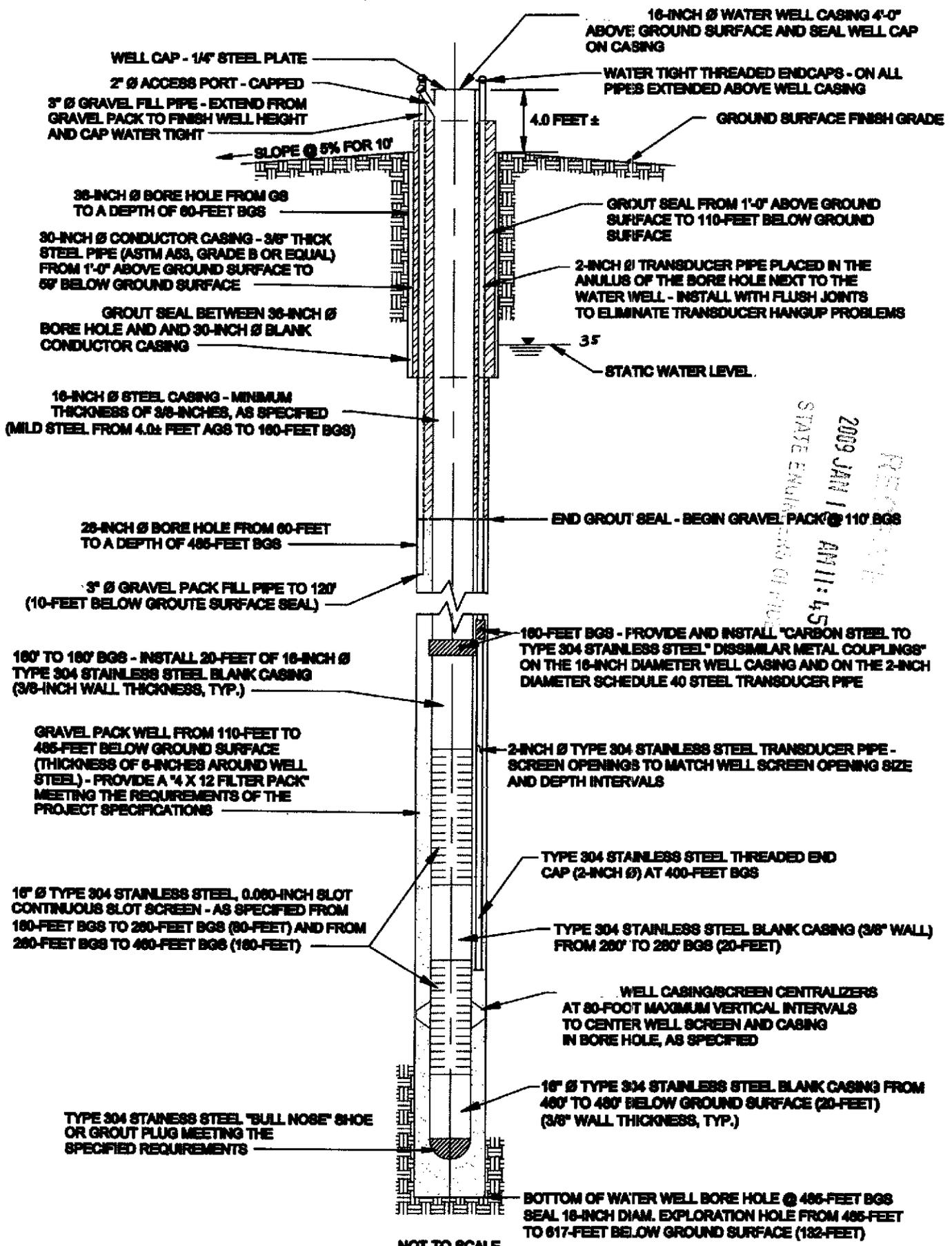
This well was drilled under my supervision and the report is true to the best of my knowledge.

Name Randal P. Stewart Contractor
Address P.O. Box 2067 Contractor
Milan, NM 87021

Nevada contractor's license number issued by the State Contractor's Board 0026063 C-23
Nevada driller's license number issued by the Division of Water Resources, the on-site driller 1570

Signed Randal P. Stewart
Date 7/8/08

STATE ENGINEER
2009 JAN 1
AM 11:45



WELL CAP - 1/4" STEEL PLATE

2" Ø ACCESS PORT - CAPPED

3" Ø GRAVEL FILL PIPE - EXTEND FROM GRAVEL PACK TO FINISH WELL HEIGHT AND CAP WATER TIGHT

30-INCH Ø BORE HOLE FROM GS TO A DEPTH OF 60-FEET BGS

30-INCH Ø CONDUCTOR CASING - 3/8" THICK STEEL PIPE (ASTM A53, GRADE B OR EQUAL) FROM 1'-0" ABOVE GROUND SURFACE TO 59' BELOW GROUND SURFACE

GROUT SEAL BETWEEN 30-INCH Ø BORE HOLE AND 30-INCH Ø BLANK CONDUCTOR CASING

16-INCH Ø STEEL CASING - MINIMUM THICKNESS OF 3/8-INCHES, AS SPECIFIED (MILD STEEL FROM 4.0± FEET AGS TO 160-FEET BGS)

28-INCH Ø BORE HOLE FROM 60-FEET TO A DEPTH OF 485-FEET BGS

3" Ø GRAVEL PACK FILL PIPE TO 120' (10-FEET BELOW GROUT SURFACE SEAL)

160' TO 180' BGS - INSTALL 20-FEET OF 16-INCH Ø TYPE 304 STAINLESS STEEL BLANK CASING (3/8-INCH WALL THICKNESS, TYP.)

GRAVEL PACK WELL FROM 110-FEET TO 485-FEET BELOW GROUND SURFACE (THICKNESS OF 6-INCHES AROUND WELL STEEL) - PROVIDE A 4 X 12 FILTER PACK MEETING THE REQUIREMENTS OF THE PROJECT SPECIFICATIONS

16" Ø TYPE 304 STAINLESS STEEL, 0.060-INCH SLOT CONTINUOUS SLOT SCREEN - AS SPECIFIED FROM 180-FEET BGS TO 280-FEET BGS (80-FEET) AND FROM 280-FEET BGS TO 480-FEET BGS (180-FEET)

TYPE 304 STAINLESS STEEL "BULL NOSE" SHOE OR GROUT PLUG MEETING THE SPECIFIED REQUIREMENTS

16-INCH Ø WATER WELL CASING 4'-0" ABOVE GROUND SURFACE AND SEAL WELL CAP ON CASING

WATER TIGHT THREADED ENDCAPS - ON ALL PIPES EXTENDED ABOVE WELL CASING

4.0 FEET ±

GROUND SURFACE FINISH GRADE

SLOPE @ 5% FOR 10'

GROUT SEAL FROM 1'-0" ABOVE GROUND SURFACE TO 110-FEET BELOW GROUND SURFACE

2-INCH Ø TRANSDUCER PIPE PLACED IN THE ANNULUS OF THE BORE HOLE NEXT TO THE WATER WELL - INSTALL WITH FLUSH JOINTS TO ELIMINATE TRANSDUCER HANGUP PROBLEMS

35'

STATIC WATER LEVEL

END GROUT SEAL - BEGIN GRAVEL PACK @ 110' BGS

160-FEET BGS - PROVIDE AND INSTALL "CARBON STEEL TO TYPE 304 STAINLESS STEEL" DISSIMILAR METAL COUPLINGS ON THE 16-INCH DIAMETER WELL CASING AND ON THE 2-INCH DIAMETER SCHEDULE 40 STEEL TRANSDUCER PIPE

2-INCH Ø TYPE 304 STAINLESS STEEL TRANSDUCER PIPE - SCREEN OPENINGS TO MATCH WELL SCREEN OPENING SIZE AND DEPTH INTERVALS

TYPE 304 STAINLESS STEEL THREADED END CAP (2-INCH Ø) AT 400-FEET BGS

TYPE 304 STAINLESS STEEL BLANK CASING (3/8" WALL) FROM 200' TO 280' BGS (20-FEET)

WELL CASING/SCREEN CENTRALIZERS AT 80-FOOT MAXIMUM VERTICAL INTERVALS TO CENTER WELL SCREEN AND CASING IN BORE HOLE, AS SPECIFIED

16" Ø TYPE 304 STAINLESS STEEL BLANK CASING FROM 480' TO 480' BELOW GROUND SURFACE (20-FEET) (3/8" WALL THICKNESS, TYP.)

BOTTOM OF WATER WELL BORE HOLE @ 485-FEET BGS SEAL 16-INCH DIAM. EXPLORATION HOLE FROM 485-FEET TO 617-FEET BELOW GROUND SURFACE (132-FEET)

NOT TO SCALE

STATE ENGINEER OF MICHIGAN
2009 JAN 1 AM 11:45
RECEIVED