STATE OF NEVADA
DIVISION OF WATER RESOURCES

WELL DRILLER'S REPORT

OFFICE USE ONLY
Log No. 115841
Permit No.
Basin No. 228

PRINT OR TYPE IN BLACK INK 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. 32291
WELL NAME *(If applicable)*: ER-20-11

1. OWNER/CLIENT NAME National Nuclear Security
MAILING ADDRESS Administrtion, P.O. Box 98518
Las Vegas, NV 89193-8518

DETAILED ADDRESS AT WELL LOCATION
Nevada National Security Site Area 20
Subdivision Name: N/A *County:* Nye

2. PLS LOCATION NW ¼ SE ¼ 34 Sec T8 N(S) 49 E
PERMIT/WAIVER NO. R-1024H *Issued by Water Resources* N/A *Current Parcel No.*

Latitude 37° 11' 46" UTM E 545,698.40 ☐ NAD 27
Longitude 116° 29' 06" UTM N 4,116,747.60 ■ NAD 83/WGS 84

3. WORKED PERFORMED
■ New Well ☐ Deepen: Orig WL#
☐ Replacement: Original well log #
☐ Recondition: Original well log #

4. PROPOSED USE
☐ Domestic ☐ Irrigation ■ Monitor
☐ Mining / Dewater ☐ Com / Ind ☐ Stock
☐ Test / Other ☐ Mun / QM ☐ Rec

5. WELL TYPE
☐ Auger ■ Rotary ☐ RVC
☐ Air ☐ Mud ☐ Sonic
■ Other Air-Foam

6. LITHOLOGIC LOG

Material Encountered	Lost Circ.	Water Strata	From	To	Thickness
Alluvium: tuffaceous, gravelly sand	N	N	0	10	10
Nonwelded and bedded tuffs: vitric; (Tfb)	N	N	10	50	40
Ash-flow tuff: partially to nonwelded, vitric; (Tma)	N	N	50	190	140
Bedded tuff: vitric (Tma)	N	N	190	270	80
Rhyolite lava flow: pumiceous top, dense below; (Tmat)	N	N	270	1165	895
Bedded tuff: zeolitic; (Tmat)	N	N	1165	1380	215
Ash-flow tuff: non to densely welded; (Tmr)	N	N	1380	1610	230
Bedded and nonwelded tuffs: zeolitic (Tmrf)	N	Y	1610	2200	590
Bedded tuffs: zeolitic; (Tm undifferentiated)	N	Y	2200	2535	335
Rhyolite lava flow: pumiceous top, dense below; (Tpb)	N	Y	2535	2960	425
Bedded tuff: zeolitic; (Tp)	N	Y	2960	3004	44

Date started: 1-Sep , 20 12
Date completed: 14-Sep , 20 12

9. WELL CONSTRUCTION
Depth Drilled: 3004 Feet Depth Cased: 2966.8 Feet

HOLE DIAMETER (BIT SIZE)

		From		To	
42	Inches	0	Feet	60	Feet
17½	Inches	60	Feet	1707	Feet
12¼	Inches	1707	Feet	3004	Feet

CASING SCHEDULE

Size O.D. (Inches)	Weight/Ft. (Pounds)	Wall Thickness (Inches)	From (Feet)	To (Feet)
30	157.7	0.500	0	58.4
13⅜	61/54.5	0.430/0.380	0	1678
7⅝	26.4	0.328	0	1615.9

PERFORATIONS:
Type of perforation: Slotted, 0.076 to 0.080 inches wide
Size of perforation: 2 inches long, spaced on 6 inch centers
From 2612.4 Feet To 2966.7 Feet
From Feet To Feet
From Feet To Feet

ANNULAR MATERIALS

☐ Sanitary Seal		to		
☐ Neat Cement		to	☐ Pumped	☐ Poured
■ Cement Grout	58.4 ft	to surface	☐ Pumped	■ Poured
☐ Concrete Grout		to	☐ Pumped	☐ Poured
☐ Bentonite Chips		to	☐ Pumped	☐ Poured
☐ Bentonite Grout		to	☐ Pumped	☐ Poured
☐ 15 % ☐ 20 % ☐ Other, explain:				
☐ Gravel Pack [> 0.2 in.]	3003	to 2591 ft	■ Pumped	☐ Poured
☐ Sand Pack [< 0.2 in.]		to	☐ Pumped	☐ Poured
☐ Other, explain:		to	☐ Pumped	☐ Poured

7. WATER QUALITIES
Static water level: 1,645 Feet below land surface
Artesian Flow: No G.P.M. P.S.I.
Water Temperature: 104.8 ° Fahrenheit
Water Quality:

8. WELL TEST DATA
Test Method: ☐ Bailer ☐ Pump ☐ Air Lift

G.P.M.	Drawdown (Feet Below Static)	Recorded Time (Hours)

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10. DRILLER'S CERTIFICATION
This well was drilled under my supervision. This report is true to the best of my knowledge.
Name
Contractor
Address
Contractor
Nevada contractor's license number as issued by the *State Contractor's Board:*
Nevada well driller's license number as issued by the *Nevada Division of Water Resources (on-site driller):* FP 2219
Signed: Michael W. Miller
By driller performing actual drilling on site or contractor
Date: 10-10-12

NAD 27

(Rev. 08-12)

LAS VEGAS OFFICE

USE ADDITIONAL SHEETS IF NECESSARY

37.196166 -116.484083

WELL DRILLER'S REPORT (cont)

NOTICE OF INTENT NO. 32291

Well ER-20-11

CASING SCHEDULE (cont.)				
Size O.D. (Inches)	Weight/Ft. (Pounds)	Wall Thickness (Inches)	From (Feet)	To (Feet)
6-5/8" stainless steel (SS)	18.99	0.280	1615.9	2966.8
Tubing in 12-1/4" hole beside 7-5/8" and 6-5/8" production casing				
2-7/8" SS tbg behind the casing (slotted)	7.66	0.276	2609.3	2965.2
2-7/8" SS tbg behind the casing (blank)	7.66	0.276	1623.1	2609.3
2-3/8" CS tbg behind the casing	4.70	0.190	0	1623.1

ANNULAR MATERIALS (cont)							
Sand pack [<0.2 in.]	X	Yes	No	to	X	Pumped	Poured
Type:	6/9 silica sand, 2591' – 2578'						
Type:	20/40 sand, 2578' – 2562'						
Other:							
Type:	Portland Type II neat cement, 2562' – 2409'						

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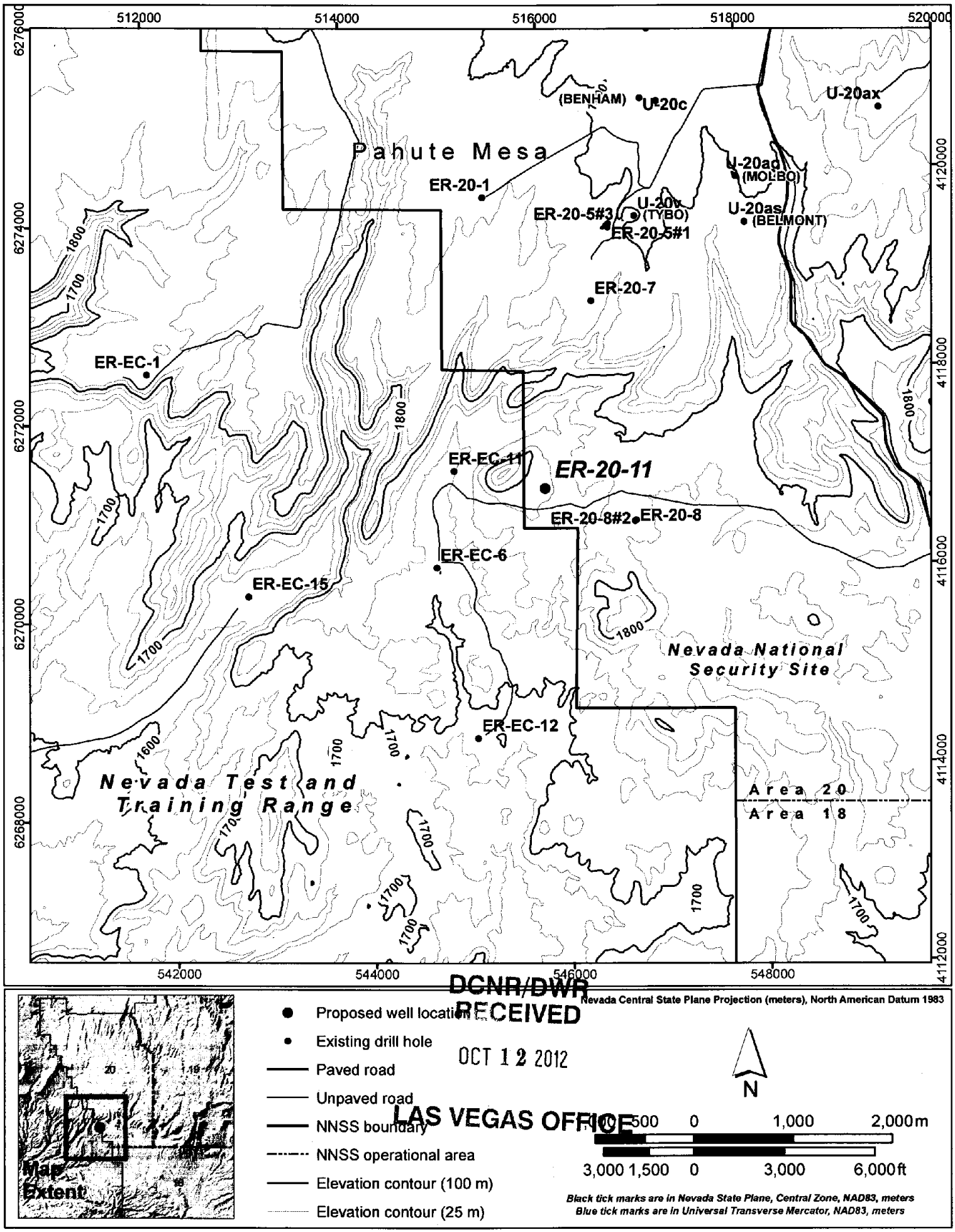

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Figure 1-2
Topographic Map of the Well ER-20-11 Area Showing the Location of Roads and Nearby Drill Holes