

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

OFFICE USE ONLY  
Log No. 109321  
Permit No. \_\_\_\_\_  
Basin 228

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. 32283

1. OWNER National Nuclear Security Administration  
MAILING ADDRESS P. O. Box 98518, Las Vegas, NV 89193

ADDRESS AT WELL LOCATION Nev. Test & Training Range, EC South  
Well ER-EC-11  
Subdivision Name: N/A County: Nye

2. LOCATION NW ¼ SW ¼ Sec 34 T 08S N/S/R 49 E  
PERMIT/WAIVER No. R-1024E N/A  
Issued by Water Resources Parcel No. \_\_\_\_\_

Latitude 37 11' 58" UTM E 544,759  NAD 27  
Longitude 116 29' 42" N 4,116,900  NAD 83/WGS 84

3. WORKED PERFORMED  
 New Well  Replace  Recondition  
 Deepen  Other

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

5. WELL TYPE  
 Cable  Rotary  RVC  
 Air  Other

6. LITHOLOGIC LOG				
Material	Water Strata	From	To	Thick-ness
Ash-flow tuff: nonwelded to partially welded (Tma)	N	0	225	225
Rhyolite lava: vitric to devitrified (Tmat)	N	225	1160	935
Bedded tuff: silicic to devitrified (Tmat)	N	1160	1345	185
Ash-flow tuff: moderately to densely welded; devitrified to vitrophyric (Tmr)	Y	1345	1560	215
Nonwelded and bedded tuff: zeolitic (Tmrf)	Y	1560	2400	840
Rhyolite lava: pumiceous to devitrified and flow breccia (Tpb)	Y	2400	3065	665
Bedded tuff: zeolitic (Tp)	Y	3065	3165	100
Ash-flow tuff: partially to densely welded; mostly devitrified (Tpc)	Y	3165	3510	345
Bedded tuff: zeolitic (Tp)	Y	3510	3635	125
Ash-flow tuff: partially to densely welded; mostly devitrified (Tpt)	Y	3635	4110	475
Bedded tuff: quartzo-feldspathic alteration (Thp)	Y	4110	4148	38
			(TD)	

9. WELL CONSTRUCTION					
Depth Drilled	4148	Feet	Depth Cased	4142	Feet
HOLE DIAMETER (BIT SIZE)					
	From	To			
	42	Inches	surface	Feet	109
	26	Inches	109	Feet	1659
	18.5	Inches	1659	Feet	3214
CASING SCHEDULE					
Size O.D. (Inches)	Weight/Ft. (Pounds)	Wall Thickness (Inches)	From (Feet)	To (Feet)	
30	157.68	0.500	surface	106	
20	106.5/94.0	0.500/0.438	surface	1656	
13-3/8	68/61/54.5	0.48/0.43/0.38	surface	3168	
Perforations:					
Type of perforation	slotted 0.076 to 0.080 inches wide				
Size of perforation	2" long, spaced on 6 inch centers				
From	for 7-5/8" csg 4101	feet to	3644	feet	
From	for 7-5/8" csg 3374	feet to	3184	feet	
From	1st tbg behind csg 4093	feet to	3641	feet	
From	2nd tbg behind csg 3376	feet to	3159	feet	
From		feet to		feet	
Annular Seal: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
<input type="checkbox"/> Neat Cement	to		<input type="checkbox"/> Pumped	<input type="checkbox"/> Poured	
<input checked="" type="checkbox"/> Cement Grout	surf	to 108	<input type="checkbox"/> Pumped	<input checked="" type="checkbox"/> Poured	
<input type="checkbox"/> Concrete Grout	to		<input type="checkbox"/> Pumped	<input type="checkbox"/> Poured	
<input type="checkbox"/> ≥30% Bentonite Grout	to		<input type="checkbox"/> Pumped	<input type="checkbox"/> Poured	
Gravel Pack: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	to		<input checked="" type="checkbox"/> Pumped	<input type="checkbox"/> Poured	
Type:	see attached page 2 with details of gravel pack				
Bentonite Chips: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	to		<input type="checkbox"/> Pumped	<input type="checkbox"/> Poured	
Type:					

Date started: 12-Sep, 2009  
Date completed: 21-Oct, 2009

7. Water Level  
Static water level: 1,477 feet below land surface  
Artesian Flow: \_\_\_\_\_ G.P.M. \_\_\_\_\_ P.S.I.  
Water Temperature: 129 °F  
Quality: \_\_\_\_\_

8. WELL TEST DATA			
TEST METHOD:	G.P.M.	Draw Down (Feet Below Static)	Time (Hours)
<input type="checkbox"/> Bailor <input type="checkbox"/> Pump <input type="checkbox"/> Air Lift			

10. DRILLER'S CERTIFICATION  
This well was drilled under my supervision and the report is true to the best of my knowledge.  
Name National Security Technologies, LLC  
Contractor  
Address P. O. Box 98521  
Contractor  
Las Vegas, NV 89193-8521  
Nevada contractor's license number \_\_\_\_\_  
issued by the State Contractor's Board  
Nevada driller's license number issued by the Division of Water Resources, the on-site driller \_\_\_\_\_  
Signed [Signature] # 2125  
By driller performing actual drilling on site or contractor  
Date 11-20-09 20-Nov

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USE ADDITIONAL SHEETS IF NECESSARY

**PAGE 2 OF 2**

**WELL DRILLER'S REPORT (cont)**

NOTICE OF INTENT NO. 32283

Well ER-EC-11

HOLE DIAMETER (BIT SIZE) (cont.)					
		From	To		
	Inches	3214	Feet	4148	Feet
12-1/4					

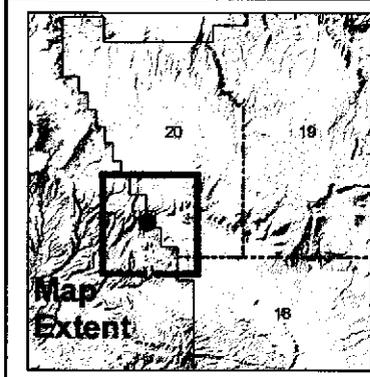
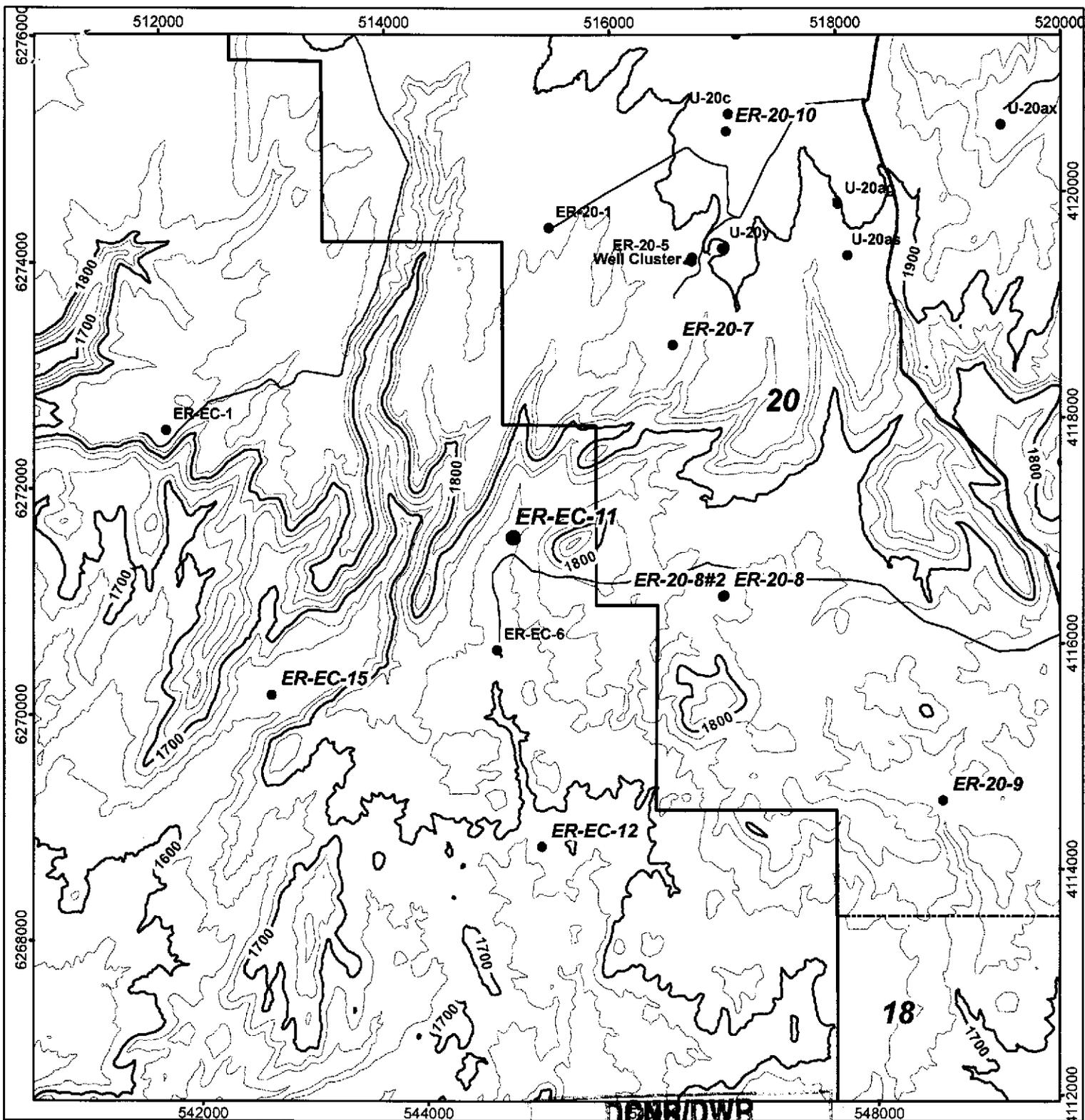
CASING SCHEDULE (cont.)				
Size O.D. (Inches)	Weight/Ft. (Pounds)	Wall Thickness (Inches)	From (Feet)	To (Feet)
7-5/8" stainless steel (SS)	23.6	0.301	1436	4142
7-5/8" carbon steel (CS)	24.6	0.328	surface	1436
1 <sup>st</sup> 2-7/8" SS tbg behind 7- 5/8" casing	7.66	0.276	2682	4094
1 <sup>st</sup> 2-7/8" CS tbg behind 7- 5/8" casing	6.50	0.217	surface	2682
2 <sup>nd</sup> 2-7/8" SS tbg behind 7- 5/8" casing	7.66	0.276	1451	3378
2 <sup>nd</sup> 2-3/8" CS tbg behind 7- 5/8" casing	4.60	0.192	surface	1451

GRAVEL PACK (cont.)							
Gravel Pack:	X	Yes	No	to	X	Pumped	Poured
Type: 3/8 inch gravel, 4148'-3620'							
Type: 6/9 silica sand, 3620'-3607'							
Type: 20/40 sand, 3607'-3590'							
Type: Portland Type II neat cement, 3590'-3385'							
Type: 3/8 inch gravel, 3385'-3134'							
Type: 6/9 silica sand, 3134'-3116'							
Type: 20/40 sand, 3116'-3100'							
Type: Portland Type II neat cement, 3100'-3024'							

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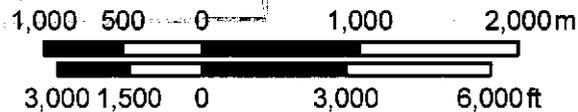
- Existing drillholes
- Proposed well location
- NTS boundary
- - - NTS operational areas
- Paved road
- Unpaved road
- Elevation contour (100m)
- Elevation contour (25m)

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Map in Nevada State Plane Projection (meters), North American Datum 1983

NOV 20 2003

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Black tick marks are in Nevada State Plane, Central Zone, NAD83, meters  
Blue tick marks are in Universal Transverse Mercator, NAD83, meters

**Figure 1-2**  
**Topographic Map of the Well ER-EC-11 Area Showing the Locations of Roads and Nearby Drill Holes**