STATE OF NEVADA
DIVISION OF WATER RESOURCES

WELL DRILLER'S REPORT

OFFICE USE ONLY
Log No. 106593
Permit No.
Basin 179

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. 60777 ~~11750~~

1. OWNER Sierra Pacific Resources
MAILING ADDRESS 705 Aultman St. Suite # 3
NE Ely, Nevada 89301

ADDRESS AT WELL LOCATION 3/4 of mile NW of Lages JCT.
Subdivision Name: Reynolds County: White Pine

2. LOCATION SE ¼ NE ¼ Sec 4 T 25N N/S R 65 E
PERMIT/WAIVER No. SE 22208 (Issued by Water Resources) Parcel No.

Latitude 40-04'-10.18" N
Longitude 114-37'-25.23" W
UTM E N
☐ NAD 27 ☒ 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	Thickness
Lean Clay		0	10	10
Silty sand with gravel		10	40	30
Well Graded Sand, Clayey Sand		40	240	200
Silty sand, well Graded Sand		240	280	40
Well Graded Gravel, with Sand		280	370	90
Well Graded Sand some Gravel		370	520	150
Clayey Sand		520	540	20
Well Graded Sand W/ Gravel &		540	810	270
Trace of Silt				
Well Graded Gravel, with Sand		810	830	20
Poorly Graded Gravel with Sand		830	840	10
Well Graded Sand with Gravel		840	920	80
Well Graded Sand (fine)		920	970	50
Poorly Graded Gravel		970	980	10
Well Graded Gravel		980	1012	32

N 40.069570
W 114.622808 NAD27

Date started: 16-Jul , 20 08
Date completed: 8/1/2008 , 20 08

9. WELL CONSTRUCTION
Depth Drilled 1012 Feet Depth Cased 1000 Feet

HOLE DIAMETER (BIT SIZE)

		From		To	
36"	Inches	0	Feet	39	Feet
28"	Inches	39	Feet	1010	Feet
	Inches		Feet		Feet

CASING SCHEDULE

Size O.D. (Inches)	Weight/Ft. (Pounds)	Wall Thickness (Inches)	From (Feet)	To (Feet)
30"		.375	0	39
16"	52	.312	0	160
16"	52	.312	240	280

Perforations:
Type of perforation: Louvered LCS
Size of perforation: .125 slot appeture

From	160	feet to	240	feet
From	280	feet to	990	feet
From		feet to		feet
From	Blank Casing 990	feet to	1000	feet
From		feet to		feet

Annular Seal: ☒ Yes ☐ No

☒ Neat Cement	0 to 39	☒ Pumped	☐ Poured
☒ Cement Grout	0 to 50	☐ Pumped	☒ Poured
☐ Concrete Grout	to	☐ Pumped	☐ Poured
☐ ≥30% Bentonite Grout	to	☐ Pumped	☐ Poured

Gravel Pack: ☒ Yes ☐ No 60 to 1010 ☒ Pumped ☐ Poured
Type: 1/8" X 1/4" SRI Gravel
Bentonite Chips: ☒ Yes ☐ No 50 to 60 ☐ Pumped ☒ Poured
Type: 3/8" X 3/4" holeplug bentonite chips

7. Water Level
Static water level: 50 feet below land surface
Artesian Flow: G.P.M. P.S.I.
Water Temperature: °F
Quality:

8. WELL TEST DATA
TEST METHOD: ☐ Bailer ☐ Pump ☒ Air Lift

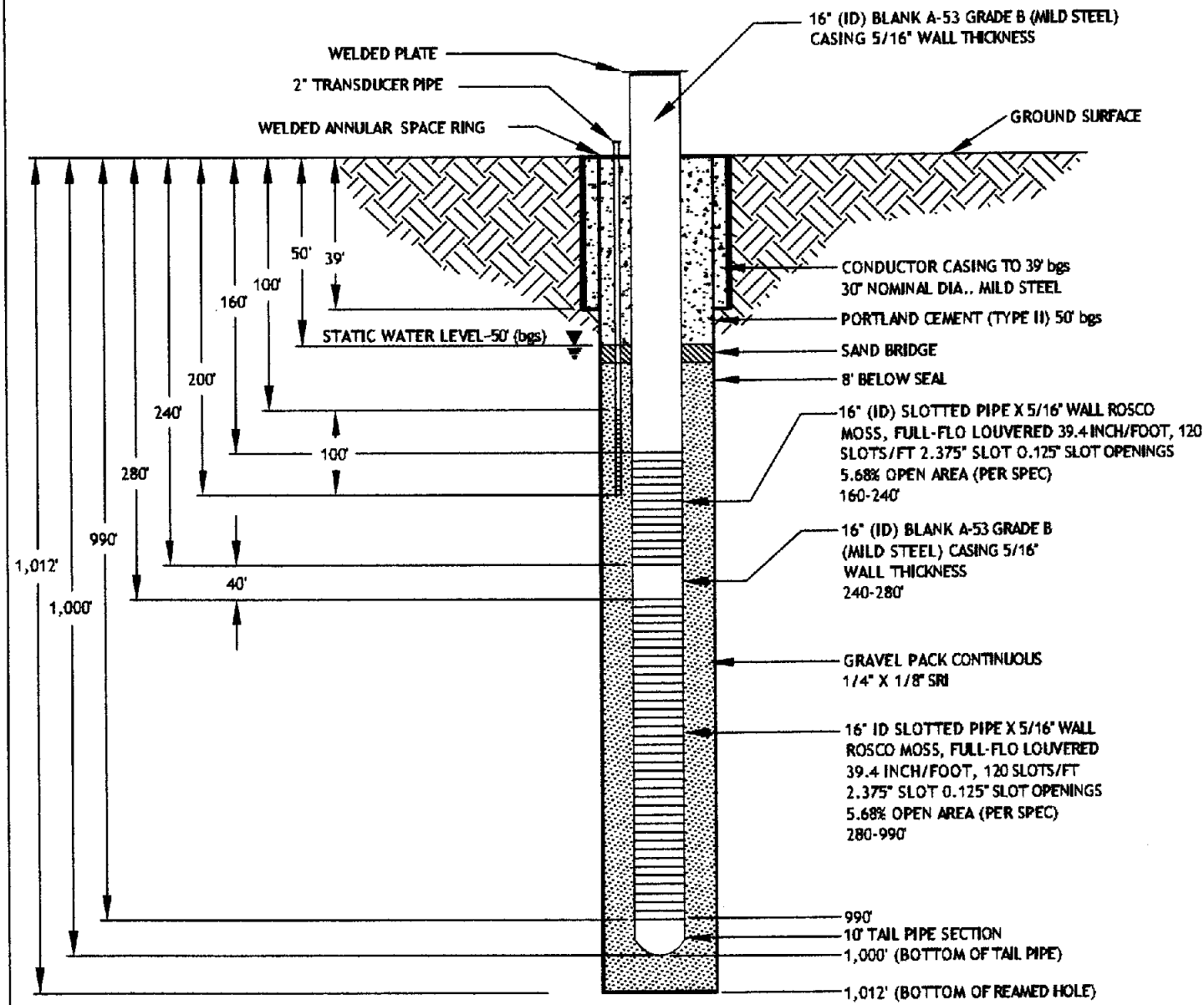
	G.P.M.	Draw Down (Feet Below Static)	Time (Hours)
Air- lift	150	not measured	130 est.

10. DRILLER'S CERTIFICATION
This well was drilled under my supervision and the report is true to the best of my knowledge.
Name WDC Exploration and Wells (Contractor)
Address 580 W. Silver St. (Contractor)
Elko, Nevada 89801
Nevada contractor's license number issued by the State Contractor's Board 0012852
Nevada driller's license number issued by the Division of Water Resources, the on-site driller 1616
Signed X (By driller performing actual drilling on site or contractor)
Date 8-1-08 8/1/2008

(Rev. 05-08)
USE ADDITIONAL SHEETS IF NECESSARY

Log 11010593

11759-R



11759-R REPLACEMENT WELL AS-BUILT

ELY ENERGY CENTER
Steptoe Valley - Reynolds Irrigation Well
White Pine County, Nevada

Scale	N.T.S.
Date	07/29/08
Drafted By	GRD
Checked By	JMD
Approved By	
File No.	H2—PD
Project No.	06-33159-02
Drawing No.	

CONVERSE CONSULTANTS

Over 60 Years of Dedication in Engineering and Environmental Sciences

Log 106593

Log No. 11759-R

DRAFTED BY KJH/MBT

Date of Drilling: 07/19/08 **Location:** See Drawing No. **Elevation (ft):** Not Measured **North:** 40.06973 **East:** -114.62439
Driller: WDC **Borehole Diameter:** 17 1/2" **Equipment:** Speedstar 110K Mud Rotary
Logged By: K. Howerton **Groundwater Depth (ft):** 50' bgs **Driving Wt. and Drop:** N/A

SUMMARY OF SUBSURFACE CONDITIONS

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Depth (ft)	Graphic Log	Samples: Drive	Samples: Bulk	Samples: Blow Count	Drill Rate (sec/ft)	Moisture (%)	Dry Density (lb/cf)	Field or Lab Tests
0								
								LEAN CLAY With Gravel (CL); few silt, angular to subangular, tan
12								SILTY SAND With Gravel (SM); subangular
24								--- trace gravel
36								WELL GRADED SAND (SP); trace fines, medium to fine grained,
48								CLAYEY SAND With Gravel (SC); few gravel, few fines, very fine to coarse grained, subangular
60								--- trace gravel
72								WELL GRADED SAND (SW); trace gravel
84								CLAYEY SAND (SC); trace gravel
96								WELL GRADED SAND (SW); trace gravel
108								-- trace clay, tan
120								

Converse Sampler (white symbol=no recovery) SPT Sampler (white symbol=no recovery)

APPROVED BY ON

EEC PROJECT - REYNOLDS REPLACEMENT 1
Lages Junction
Ely, Nevada

Project No.
06-33159-02

Drawing No.

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		WELL GRADED SAND (SW); trace gravel, tra ce clay, tan							
132		---With Clay; few gravel							
144		WELL GRADED SAND (SW); trace gravel, trace clay, subangular							
156									
168									
180		LEAN CLAY With Sand (CL); trace gravel, subrounded, tan							
192		---few sand, subangular, brown							
		---trace gravel							
204		---yellowish green							
216		WELL GRADED SAND (SW); trace gravel, subangular							
228									
240									

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	SILTY SAND (SM); few gravel							
252	WELL GRADED SAND With Gravel (SW); trace silt, subangular to angular							
264								
276								
	WELL GRADED GRAVEL With Sand (GW); angular to subangular							
288								
300	WELL GRADED SAND With Gravel (SW); few silt							
312	-- subangular to subrounded							
324	WELL GRADED GRAVEL With Sand (GW); trace silt, angular to subangular							
336	WELL GRADED SAND With Gravel (SW); trace clay							
348								
360	WELL GRADED GRAVEL With Sand (GW);							

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WELL GRADED SAND With Gravel (SW); trace silt

372 ---few gravel, angular to subangular

---trace gravel

384 ---few gravel

396 ---trace silt

408 SILTY SAND (SM); few gravel, angular to subangular

420 WELL GRADED SAND (SW); trace gravel

---few gravel

432 ---trace gravel

444

456 ---subangular to subrounded

468

480

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Log 186593

Log No. 11759-R

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492								
504								
516								
528								
540								
552								
564								
576								
588								
600								

SILTY SAND (SM); trace gravel

---angular to subangular, multicolored

CLAYEY SAND (SC); subangular

WELL GRADED SAND (SW); trace gravel, trace silt, angular to subangular

---multicolored

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612								
624								
636								
648								
660								
672								
684								
696								
708								
720								

WELL GRADED SAND (SW); trace gravel, trace silt, angular to subangular, multi colored

---With Silt; few gravel

SILTY SAND (SM); subangular to subrounded

WELL GRADED SAND With Silt (SW); angular to subangular, multicolored

---few silt, trace gravel

---With Silt; trace gravel

---trace silt

---few silt

---trace silt

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732		WELL GRADED SAND (SW); angular to subangular, multicolored							
744		--- few silt, trace gravel							
756		--- few gravel, trace silt							
768									
780									
792		---trace gravel, coarse to fine grained sand							
804									
816		WELL GRADED SAND With GRAVEL (SW); angular to subangular							
828									
840		POORLY GRADED GRAVEL With SAND (GP); medium to coarse sand, angular to subangular, multicolored							

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852								
864								
876								
888								
900								
912								
924								
936								
948								
960								

WELL GRADED SAND With GRAVEL (SW); coarse grained, subangular, multicolored

--- angular

--- subangular

--- trace fines

WELL GRADED SAND (SW); fine grained, subrounded, multicolored

With Gravel; subangular to subrounded

--- coarse grained

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		WELL GRADED SAND With Gravel; coarse gra ined, subangular to subrounded							
972		POORLY GRADED GRAVEL (GP); coarse grained, subangular to subrounded, multicolored							
984		WELL GRADED SAND (SW); coarse grained, subangular, multicolored --- subrounded							
996		End of Borehole							
1008									
1020									
1032									
1044									
1056									
1068									
1080									

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End of Exploration at 1000.0' | Converse Sampler (white symbol=no recovery) | SPT Sampler (white symbol=no recovery)

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