

A00022

TEC-20

LA GRANDE  
Thermal Data Field Sheets  
La Grande, Oregon





TEMPERATURE - DEPTH LOG

Location La Grande, Oregon Date April 20, 1975

Map Conley Quadrangle

Property T 2 S R 39 E sec NE 1/4 34

Drill Hole LG-1 Date Drilled March 20, 1975 Elevation 2670 ft.

Instrument \_\_\_\_\_ Operator D. Pilkington

Comments Re-logged 0900 hours - PVC filled date drilled

Depth (meters)	Instr. Reading	Temp. °C	ΔT	Gradient °C/Km Avg.	Comments
0	7.976	5.210			
1	7.464	6.770	1.560		
2	7.016	8.240	1.470		
3	6.634	9.585	1.345		
4	6.494	10.100	0.515		
5	6.479	10.155	0.055		
6	6.366	10.580	0.425		
7	6.362	10.595	0.005		
8	6.366	10.580	-0.005		
9	6.369	10.570	-0.005		
10	6.370	10.565	0.005		
11	6.367	10.575	0.005		
12	6.366	10.580	0.005		
13	6.362	10.595	0.010		
14	6.359	10.605	0.055		
15	6.345	10.660	0.040		
16	6.334	10.700	0.035		
17	6.326	10.735	0.030		
18	6.318	10.765	0.030		
19	6.310	10.795	0.030		
20	6.302	10.825	0.030		





4 5 6 7 8 9 10 11

HOLE ———

10

20

30

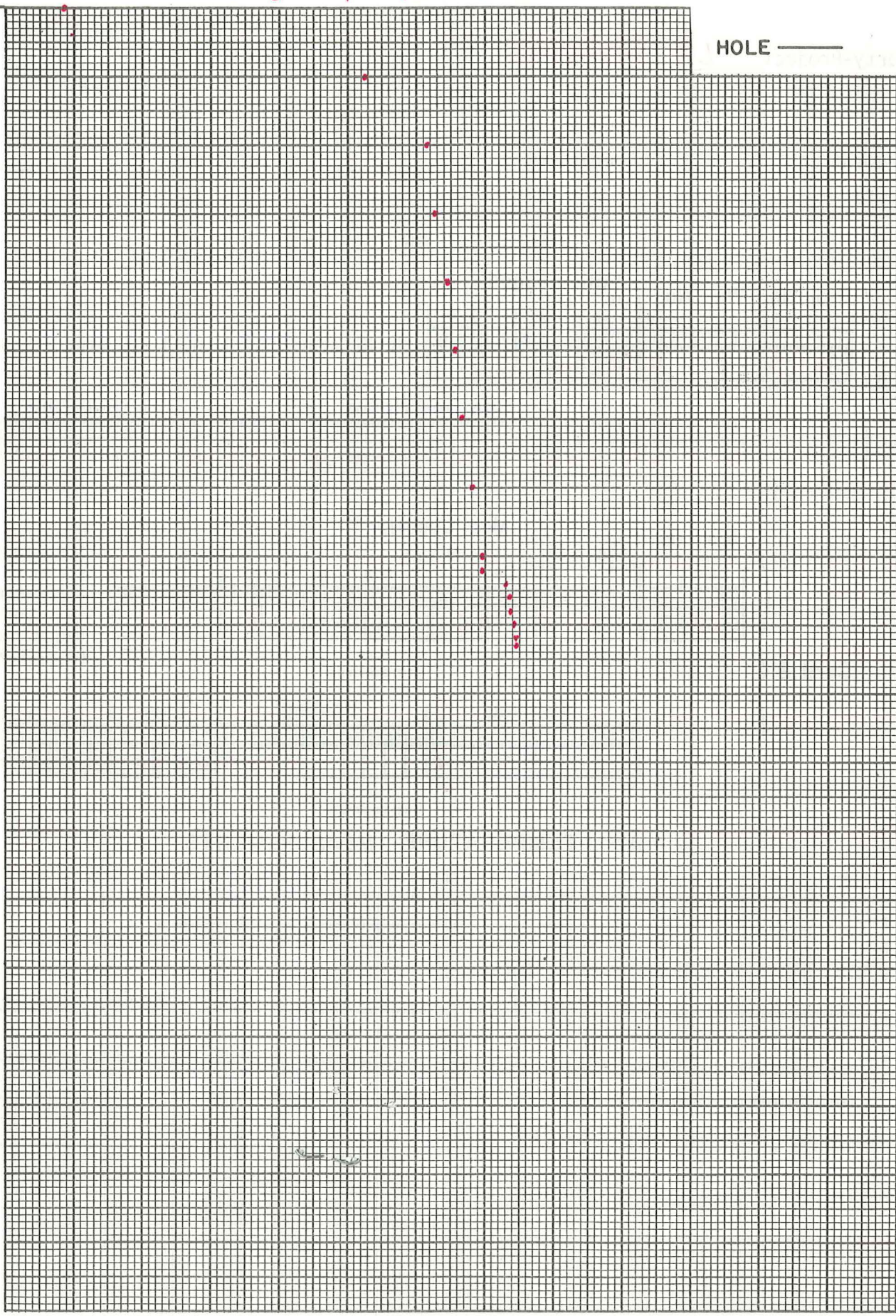
40

50

DEPTH  
METERS



TEMPERATURE °C ———>



TEMPERATURE - DEPTH LOG

Location La Grande Oregon Date April 20, 1975

Map Conley Quadrangle

Property \_\_\_\_\_ T 3S R 39E sec SE 1/4 11

Drill Hole LG-2 Date Drilled March 24, 1975 Elevation 2692 ft.

Instrument \_\_\_\_\_ Operator D. Pilkington

Comments relogged 1030 hrs PVC filled with H<sub>2</sub>O date drilled

Depth (meters)	Instr. Reading	Temp. °C	ΔT	Gradient °C/Km Avg.	Comments
0	8.102	4.845			
1	7.528	6.570	1.725		
2	7.142	7.815	0.245		
3	7.102	7.950	0.135		
4	7.066	8.070	0.120		
5	6.722	9.265	0.195		
6	6.540	9.925	2.660		
7	6.494	10.100	0.175		
8	6.483	10.140	0.040		
9	6.482	10.145	0.005		
10	6.482	10.145	0.000		
11	6.480	10.150	0.005		
12	6.475	10.170	0.020		
13	6.467	10.200	0.030		
14	6.457	10.235	0.035		
15	6.448	10.270	0.035		
16	6.440	10.300	0.030		
17	6.431	10.335	0.035		
18	6.422	10.365	0.030		
19	6.414	10.395	0.030		
20	6.408	10.420	0.025		
			0.025		



TEMPERATURE - DEPTH LOG

Location \_\_\_\_\_ Date \_\_\_\_\_

Map \_\_\_\_\_

Property \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_ sec \_\_\_\_\_

Drill Hole \_\_\_\_\_ Date Drilled \_\_\_\_\_ Elevation \_\_\_\_\_ ft.

Instrument \_\_\_\_\_ Operator \_\_\_\_\_

Comments \_\_\_\_\_

Depth (meters)	Instr. Reading	Temp. °C	ΔT	Gradient °C/Km Avg.	Comments
21	6.401	10.445	0.030		
22	6.393	10.475	0.030		
23	6.385	10.505	0.030		
24	6.378	10.535	0.005		
25	6.376	10.540	0.025		
26	6.370	10.565	0.035		
27	6.361	10.600	0.020		
28	6.355	10.620	0.020		
29	6.350	10.640	0.030		
30	6.342	10.670	0.030		
31	6.335	10.700	0.020		
32	6.329	10.720	0.030		
33	6.322	10.750	0.015		
34	6.317	10.765	0.035		
35	6.309	10.800	0.025		
36	6.302	10.825	0.025		
37	6.295	10.850	0.030		
38	6.288	10.880	0.025		
39	6.281	10.905	0.030		
40	6.274	10.935	0.030		
41	6.266	10.965	0.030		



TEMPERATURE DEPTH LOG

ΔT Well No. 3

Property-Project LA GRANDE Depth Logged \_\_\_\_\_

Map \_\_\_\_\_ Scale \_\_\_\_\_ Date: Drilled \_\_\_\_\_ Logged \_\_\_\_\_

State \_\_\_\_\_ County \_\_\_\_\_ Section \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_

Instrument \_\_\_\_\_ Operator \_\_\_\_\_ Elevation \_\_\_\_\_ ft.

Comments \_\_\_\_\_

COMPUTER PROCESSING

RT JUSTIFY: **Card A**

Proj No				Well No						Date Logged			*							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
643										318			AP	75	CM					

\* 19- Write F if Fahrenheit, 20- Write F if Feet

Site Description																																																							Operator					Editor				
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	DF/MLH																								
6.7 KM SE OF COMLEY, OREGON																																																																

**Card B**

Scale Unit		Map Size		Map Location <sup>Δ</sup>				W Long																					
in		(7.5, 15., 60)		N Lat		Degree		Min		Degree		Min																	
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
CM		7.5		45.15				118.00																					

Use decimals

Δ Measure from SW corner of map; except AMS sheets measure from bottom center degree mark (W,-)(E,+)

Northing										Easting										Elev									
51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
28.6										12.1										2678.									

Write M if meters

SEGMENT DEPTH

	Start										End										K					ΔK				
C	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
D	15.0										41.0										-3.23					-1.5				
E																														
F																														
G																														

Continue each card below.

SEGMENT DEPTH

	Start										End										K					ΔK				
C	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
D	.999																													
E																														
F																														
G																														

Final Segment: Start = .999

TEMPERATURE - DEPTH LOG

Location La Grande Oregon Date April 16, 1975

Map Conley Quadrangle

Property T 3 S R 39 E sec SW 4 8

Drill Hole LG-3 Date Drilled \_\_\_\_\_ Elevation 2678 ft.

Instrument \_\_\_\_\_ Operator D. Pilkington

Comments Logged at 1300 hrs

Depth (meters)	Instr. Reading	Temp. °C	ΔT	Gradient °C/Km Avg.	Comments
0	7.581	6.405			
1	7.239	7.495	1.090		
2	6.748	9.175	1.680		
3	6.627	9.610	0.435		
4	6.567	9.830	0.220		
5	6.557	9.865	0.035		
6	6.415	10.395	0.530		
7	6.378	10.535	0.140		
8	6.374	10.550	0.015		
9	6.376	10.540	0.010		
10	6.377	10.545	0.005		
11	6.376	10.540	0.005		
12	6.373	10.550	0.010		
13	6.370	10.565	0.015		
14	6.367	10.575	0.010		
15	6.364	10.585	0.010		
16	6.360	10.600	0.015		
17	6.355	10.620	0.020		
18	6.349	10.645	0.025		
19	6.344	10.665	0.020		
20	6.338	10.685	0.020		
			0.025		

TEMPERATURE - DEPTH LOG

Location \_\_\_\_\_ Date \_\_\_\_\_

Map \_\_\_\_\_

Property \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_ sec \_\_\_\_\_

Drill Hole \_\_\_\_\_ Date Drilled \_\_\_\_\_ Elevation \_\_\_\_\_ ft.

Instrument \_\_\_\_\_ Operator \_\_\_\_\_

Comments \_\_\_\_\_

Depth (meters)	Instr. Reading	Temp. °C	ΔT	Gradient °C/Km Avg.	Comments
21	6.332	10.710	0.020		
22	6.327	10.730	0.020		
23	6.321	10.750	0.025		
24	6.315	10.775	0.020		
25	6.309	10.795	0.035		
26	6.301	10.830	0.025		
27	6.294	10.855	0.025		
28	6.288	10.880	0.020		
29	6.282	10.900	0.035		
30	6.273	10.935	0.035		
31	6.264	10.970	0.040		
32	6.254	11.010	0.035		
33	6.245	11.045	0.030		
34	6.237	11.075	0.030		
35	6.229	11.105	0.030		
36	6.222	11.135	0.030		
37	6.214	11.165	0.025		
38	6.208	11.190	0.030		
39	6.200	11.220	0.030		
40	6.192	11.250	0.035		
41	6.184	11.285	0.035		





TEMPERATURE - DEPTH LOG

Location La Grande, Oregon Date April 19, 1975

Map La Grande SE Quadrangle

Property T 35 R 38E sec NW/4 34

Drill Hole LG-5 Date Drilled April 2, 1975 Elevation 2745 ft.

Instrument \_\_\_\_\_ Operator D Pilkington

Comments Logged at 0800 hours PVC filled with 1120 into 12, 13, 14!

Depth (meters)	Instr. Reading	Temp. °C	ΔT	Gradient °C/Km Avg.	Comments
0	7.597	6.355			
1	7.687	6.075	0.280		
2	7.205	7.610	0.545		
3	6.748	9.175	1.565		
4	6.352	10.635	1.460		
5	6.200	11.200	0.565		
6	6.177	11.310	0.110		
7	6.151	11.415	0.105		
8	6.146	11.435	0.020		
9	6.140	11.410	0.025		
10	6.138	11.465	0.005		
11	6.126	11.515	0.050		
12	6.123	11.525	0.010		
13	6.126	11.515	0.010		
14	6.124	11.520	0.005		
15	6.120	11.540	0.020		
16	6.114	11.560	0.020		
17	6.107	11.590	0.030		
18	6.100	11.615	0.025		
19	6.092	11.650	0.035		
20	6.083	11.685	0.035		
			0.040		





# TEMPERATURE DEPTH LOG

ΔT Well No. 6

Property-Project LA GRANDE Depth Logged \_\_\_\_\_  
 Map \_\_\_\_\_ Scale \_\_\_\_\_ Date: Drilled \_\_\_\_\_ Logged \_\_\_\_\_  
 State \_\_\_\_\_ County \_\_\_\_\_ Section \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_  
 Instrument \_\_\_\_\_ Operator \_\_\_\_\_ Elevation \_\_\_\_\_ ft.  
 Comments \_\_\_\_\_

## COMPUTER PROCESSING

RT JUSTIFY: **Card A**

Proj No					Well No					Date Logged			*	
1	2	3	4	5	6	7	8	9	10	DA	MO	YR	19	20
6	4	3								6	19	AP	75	CM

\* 19- Write F if Fahrenheit, 20- Write F if Feet

Site Description																																																							Operator					Editor				
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60																									
5.3 KM SE OF LA GRANDE AIRPORT OF MLH																																																																

**Card B**

Scale Unit					Map Location <sup>Δ</sup>										Map Size					N Lat					W Long														
in					Degree										Min					Degree					Min														
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
CM					7.5										45					15					118					00									

Use decimals

Δ Measure from SW corner of map; except AMS sheets measure from bottom center degree mark (W,-)(E,+)

Northing										Easting										Elev					F				
51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
1.75										15.6										26.98					F				

Use decimals

Write M if meters

	SEGMENT DEPTH																													
	Start										End										K					ΔK				
	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
C	15.0										47.0										-3.83					-.5				
D																														
E																														
F																														
G																														

Continue each card below.

	SEGMENT DEPTH																																							
	Start										End										K					ΔK														
	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80										
C	.999																																							
D																																								
E																																								
F																																								
G																																								

Final Segment: Start = .999

TEMPERATURE - DEPTH LOG

Location La Grande Oregon Date April 19, 1975

Map Conley Quadrangle

Property T 3 S R 39 E sec 5 E 1/4 32

Drill Hole LG-6 Date Drilled April 3, 1975 Elevation 2698 ft.

Instrument \_\_\_\_\_ Operator D. Pilkington

Comments logged at 0930 hrs PVC filled with H<sub>2</sub>O date drilled

Depth (meters)	Instr. Reading	Temp. °C	ΔT	Gradient °C/Km Avg.	Comments
0	7.489	6.690	-1.040		
1	7.824	5.650	1.020		
2	7.496	6.670	2.100		
3	6.862	8.770	0.490		
4	6.723	9.260	0.220		
5	6.063	9.480	0.155		
6	6.619	9.635	0.080		
7	6.598	9.715	0.050		
8	6.584	9.765	0.035		
9	6.574	9.800	0.055		
10	6.563	9.845	0.025		
11	6.555	9.870	0.230		
12	6.493	10.100	0.385		
13	6.396	10.475	0.080		
14	6.372	10.555	0.060		
15	6.357	10.615	0.045		
16	6.345	10.660	0.045		
17	6.333	10.705	0.045		
18	6.321	10.750	0.050		
19	6.308	10.800	0.055		
20	6.296	10.845	0.035		

TEMPERATURE - DEPTH LOG

Location \_\_\_\_\_ Date \_\_\_\_\_

Map \_\_\_\_\_

Property \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_ sec \_\_\_\_\_

Drill Hole \_\_\_\_\_ Date Drilled \_\_\_\_\_ Elevation \_\_\_\_\_ ft.

Instrument \_\_\_\_\_ Operator \_\_\_\_\_

Comments \_\_\_\_\_

Depth (meters)	Instr. Reading	Temp. °C	ΔT	Gradient °C/Km Avg.	Comments
21	6.287	10.880	0.040		
22	6.277	10.920	0.065		
23	6.261	10.985	0.050		
24	6.247	11.035	0.055		
25	6.233	11.090	0.060		
26	6.218	11.150	0.055		
27	6.204	11.205	0.060		
28	6.189	11.265	0.060		
29	6.173	11.325	0.060		
30	6.159	11.385	0.060		
31	6.143	11.445	0.060		
32	6.129	11.505	0.050		
33	6.116	11.555	0.055		
34	6.102	11.610	0.060		
35	6.087	11.670	0.055		
36	6.073	11.725	0.055		
37	6.059	11.780	0.060		
38	6.044	11.840	0.060		
39	6.030	11.900	0.050		
40	6.017	11.950	0.060		
41	6.003	12.010	0.060		



TEMPERATURE DEPTH LOG

ΔT Well No. 7

Property-Project LA GRANDE Depth Logged \_\_\_\_\_  
 Map \_\_\_\_\_ Scale \_\_\_\_\_ Date: Drilled \_\_\_\_\_ Logged \_\_\_\_\_  
 State \_\_\_\_\_ County \_\_\_\_\_ Section \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_  
 Instrument \_\_\_\_\_ Operator \_\_\_\_\_ Elevation \_\_\_\_\_ ft.  
 Comments \_\_\_\_\_

COMPUTER PROCESSING

RT JUSTIFY: /

Proj No				Well No						Date Logged			* C M	
1	2	3	4	5	6	7	8	9	10	DA	MO	YR		
6	4	3							7	1	9	AP	7	S

\* 19- Write F if Fahrenheit, 20- Write F if Feet

Card A

Site Description																																																Operator						Editor					
4	KM	SW	OF	COVE	OREGON							DP	MLH																																														

Scale Unit		Map Size		Map Location <sup>Δ</sup>				W Long																					
in	cm	(7.5, 15., 60)	cm	N Lat		Degree		Min		Degree		Min																	
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
	CM		7.5	45.	15.	117.	52.5																						

Use decimals

Card B

Northing										Easting										Elev									
51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
									14.55										6.02705.										F

Write M if meters

SEGMENT DEPTH

	Start		End		K	ΔK																								
	21	22	23	24			25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
C	15.0				42.5																-4.06									1.5
D																														
E																														
F																														
G																														

Continue each card below.

SEGMENT DEPTH

	Start		End		K	ΔK																								
	51	52	53	54			55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78
C	.999																													
D																														
E																														
F																														
G																														

Final Segment: Start = .999

TEMPERATURE - DEPTH LOG

Location La Grande Oregon Date April 19, 1975

Map Cove Quadrangle

Property T 35 R 40E sec NE 1/4 30

Drill Hole LG-7 Date Drilled April 4, 1975 Elevation 2705 ft.

Instrument \_\_\_\_\_ Operator D. Pilkington

Comments logged at 1300 hrs PVC filled with H<sub>2</sub>O date drilled

Depth (meters)	Instr. Reading	Temp. °C	ΔT	Gradient °C/Km Avg.	Comments
0	7.214	7.580			
1	7.428	6.885	0.705		
2	7.246	7.475	0.590		
3	7.125	7.875	0.400		
4	6.867	8.755	0.880		
5	6.610	8.955	0.200		
6	6.423	10.365	1.410		
7	6.303	10.590	0.225		
8	6.335	10.700	0.110		
9	6.337	10.690	-0.010		
10	6.339	10.685	0.005		
11	6.338	10.685	0.000		
12	6.335	10.700	0.015		
13	6.334	10.705	0.005		
14	6.331	10.715	0.010		
15	6.326	10.735	0.020		
16	6.317	10.765	0.030		
17	6.307	10.805	0.040		
18	6.301	10.830	0.025		
19	6.293	10.860	0.030		
20	6.283	10.900	0.040		
			0.025		

TEMPERATURE - DEPTH LOG

Location \_\_\_\_\_ Date \_\_\_\_\_

Map \_\_\_\_\_

Property \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_ sec \_\_\_\_\_

Drill Hole \_\_\_\_\_ Date Drilled \_\_\_\_\_ Elevation \_\_\_\_\_ ft.

Instrument \_\_\_\_\_ Operator \_\_\_\_\_

Comments \_\_\_\_\_

Depth (meters)	Instr. Reading	Temp. °C	ΔT	Gradient °C/Km Avg.	Comments
21	6.276	10.925	0.105		
22	6.249	11.030	0.085		
23	6.224	11.125	0.040		
24	6.214	11.165	0.040		
25	6.204	11.205	0.050		
26	6.191	11.255	0.055		
27	6.177	11.310	0.095		
28	6.166	11.355	0.045		
29	6.155	11.400	0.040		
30	6.144	11.440	0.055		
31	6.131	11.495	0.055		
32	6.117	11.550	0.050		
33	6.104	11.600	0.055		
34	6.091	11.655	0.045		
35	6.079	11.700	0.045		
36	6.068	11.745	0.040		
37	6.058	11.785	0.050		
38	6.046	11.835	0.045		
39	6.035	11.880	0.055		
40	6.024	11.925	0.045		
41	6.013	11.970	0.040		





# TEMPERATURE DEPTH LOG

ΔT Well No. 8

Property-Project LA GRANDE Depth Logged \_\_\_\_\_

Map \_\_\_\_\_ Scale \_\_\_\_\_ Date: Drilled \_\_\_\_\_ Logged \_\_\_\_\_

State \_\_\_\_\_ County \_\_\_\_\_ Section \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_

Instrument \_\_\_\_\_ Operator \_\_\_\_\_ Elevation \_\_\_\_\_ ft.

Comments \_\_\_\_\_

## COMPUTER PROCESSING

RT JUSTIFY: → → → → \*

Proj No				Well No						Date Logged			*						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
643										819			AP 75 CM						

\* 19- Write F if Fahrenheit, 20- Write F if Feet

Card A

Site Description																																																Operator				Editor			
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60																
7.6 KM ENE OF UNION, OREGON																																																DP				MLH			

Scale Unit		Map Size		Map Location <sup>Δ</sup>				W Long				N Lat																	
in	cm	(7.5, 15., 60)	cm	Degree		Min		Degree		Min		Degree		Min															
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
CM		7.5		45				7.5		117		52		5															

Use decimals

Δ Measure from SW corner of map; except AMS sheets measure from bottom center degree mark (W, -) (E, +)

Card B

Northing						Easting						Elev				F													
51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
45.9						35.5						3520.				F													

Write M if meters

	SEGMENT DEPTH		K	ΔK
	Start	End		
C	19.0	52.0	-4.7	-.5
D				
E				
F				
G				

Continue each card below.

	SEGMENT DEPTH		K	ΔK
	Start	End		
C	.999			
D				
E				
F				
G				

Final Segment: Start = .999

TEMPERATURE - DEPTH LOG

Location La Grande Oregon Date April 19, 1975

Map Union Quadrangle

Property T 4S R 40E sec 5w/4 12

Drill Hole LG-8 Date Drilled April 7, 1975 Elevation 3520 ft.

Instrument \_\_\_\_\_ Operator D. Pilkington

Comments Logged at 1400 hrs PVC filled with H<sub>2</sub>O date drilled

Depth (meters)	Instr. Reading	Temp. °C	ΔT	Gradient °C/Km Avg.	Comments
0	7.696	6.050	-1.215		
1	8.105	4.835	0.455		
2	7.950	5.290	0.940		
3	7.638	6.730	0.955		
4	7.335	7.185	0.870		
5	7.071	8.055	0.795		
6	6.840	8.850	0.580		
7	6.676	9.430	0.400		
8	6.567	9.830	0.260		
9	6.496	10.090	0.155		
10	6.454	10.245	0.075		
11	6.434	10.320	0.015		
12	6.431	10.335	-0.035		
13	6.440	10.300	-0.040		
14	6.451	10.260	-0.040		
15	6.461	10.220	-0.025		
16	6.468	10.195	-0.025		
17	6.474	10.170	-0.010		
18	6.477	10.160	-0.005		
19	6.479	10.155	0.000		
20	6.479	10.155	0.000		

TEMPERATURE - DEPTH LOG

Location \_\_\_\_\_ Date \_\_\_\_\_

Map \_\_\_\_\_

Property \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_ sec \_\_\_\_\_

Drill Hole \_\_\_\_\_ Date Drilled \_\_\_\_\_ Elevation \_\_\_\_\_ ft.

Instrument \_\_\_\_\_ Operator \_\_\_\_\_

Comments \_\_\_\_\_

Depth (meters)	Instr. Reading	Temp. °C	ΔT	Gradient °C/Km Avg.	Comments
21	6.478	10.155	0.010		
22	6.476	10.165	0.010		
23	6.473	10.175	0.010		
24	6.470	10.185	0.020		
25	6.465	10.205	0.020		
26	6.460	10.225	0.025		
27	6.453	10.250	0.020		
28	6.448	10.270	0.020		
29	6.443	10.290	0.015		
30	6.439	10.305	0.015		
31	6.437	10.310	0.020		
32	6.432	10.330	0.010		
33	6.429	10.340	0.015		
34	6.425	10.355	0.020		
35	6.420	10.375	0.015		
36	6.416	10.390	0.015		
37	6.412	10.405	0.015		
38	6.408	10.420	0.015		
39	6.404	10.435	0.010		
40	6.400	10.450	0.015		
41	6.396	10.465	0.015		





TEMPERATURE - DEPTH LOG

Location La Grande Oregon Date April 19 1975

Map Union Quadrangle

Property T 4 S R 40 E sec NE 1/4 21

Drill Hole LG-9 Date Drilled April 8, 1975 Elevation 2970 ft.

Instrument \_\_\_\_\_ Operator D. Pilkington

Comments Logged at 1500 hrs PVC filled with H<sub>2</sub>O since drilled

Depth (meters)	Instr. Reading	Temp. °C	ΔT	Gradient °C/Km Avg.	Comments
0	6.916	8.585	-1.225		
1	7.280	7.360	0.995		
2	6.983	8.355	1.075		
3	6.684	9.400	1.060		
4	6.398	10.460	1.030		
5	6.132	11.490	0.785		
6	5.940	12.270	0.125		
7	5.909	12.395	0.095		
8	5.880	12.490	0.060		
9	5.872	12.550	0.055		
10	5.861	12.595	0.370		
11	5.773	12.965	0.070		
12	5.757	13.035	0.055		
13	5.745	13.090	0.055		
14	5.732	13.145	0.060		
15	5.718	13.205	0.070		
16	5.702	13.275	0.075		
17	5.685	13.350	0.070		
18	5.668	13.420	0.085		
19	5.649	13.505	0.075		
20	5.632	13.580	0.065		

TEMPERATURE - DEPTH LOG

Location \_\_\_\_\_ Date \_\_\_\_\_  
 Map \_\_\_\_\_  
 Property \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_ sec \_\_\_\_\_  
 Drill Hole \_\_\_\_\_ Date Drilled \_\_\_\_\_ Elevation \_\_\_\_\_ ft.  
 Instrument \_\_\_\_\_ Operator \_\_\_\_\_  
 Comments \_\_\_\_\_

Depth (meters)	Instr. Reading	Temp. °C	ΔT	Gradient °C/Km Avg.	Comments
21	5.617	13.645	0.060		
22	5.603	13.705	0.050		
23	5.592	13.755	0.050		
24	5.581	13.805	0.055		
25	5.568	13.860	0.070		
26	5.553	13.930	0.060		
27	5.539	13.990	0.060		
28	5.526	14.050	0.045		
29	5.516	14.095	0.040		
30	5.507	14.135	0.035		
31	5.499	14.170	0.040		
32	5.490	14.210	0.045		
33	5.480	14.255	0.065		
34	5.466	14.320	0.074		
34.5	5.458	14.355			
99999.					

Average Gradient 11-34m = 58.9°C/km





TEMPERATURE - DEPTH LOG

Location La Grande, Oregon Date May 13, 1975

Map Union Quadrangle

Property T4 S R 40E sec 30

Drill Hole LG-10 Date Drilled April 22, 1975 Elevation 2816 ft.

Instrument \_\_\_\_\_ Operator H.D. Pilkington

Comments Logged at 1300 hours. Filled with H2O date drilled

Depth (meters)	Instr. Reading	Temp. °C	ΔT	Gradient °C/Km Avg.	Comments
0	6.463	10.215	-2.205		
1	7.084	8.010	0.325		
2	6.989	8.335	0.950		
3	6.717	9.285	1.030		
4	6.436	10.315	0.740		
5	6.243	11.055	0.540		
6	6.106	11.595	0.245		
7	6.045	11.840	0.085		
8	6.021	11.935	0.050		
9	6.009	11.985	0.030		
10	6.002	12.015	0.030		
11	5.994	12.045	0.045		
12	5.983	12.090	0.055		
13	5.968	12.155	0.050		
14	5.955	12.205	0.070		
15	5.938	12.275	0.075		
16	5.920	12.350	0.065		
17	5.905	12.415	0.075		
18	5.887	12.490	0.075		
19	5.869	12.565	0.070		
20	5.852	12.635	0.070		

TEMPERATURE - DEPTH LOG

Location \_\_\_\_\_ Date \_\_\_\_\_  
 Map \_\_\_\_\_  
 Property \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_ sec \_\_\_\_\_  
 Drill Hole \_\_\_\_\_ Date Drilled \_\_\_\_\_ Elevation \_\_\_\_\_ ft.  
 Instrument \_\_\_\_\_ Operator \_\_\_\_\_  
 Comments \_\_\_\_\_

Depth (meters)	Instr. Reading	Temp. °C	ΔT	Gradient °C/Km Avg.	Comments
21	5.835	12.705			
			0.075		
22	5.818	12.780			
			0.070		
23	5.801	12.850			
			0.110		
24	5.775	12.960			
			0.030		
25	5.768	12.990			
			0.010		
26	5.766	13.000			
			0.110		
27	5.740	13.110			
			0.075		
28	5.723	13.185			
			0.065		
29	5.708	13.250			
			0.065		
30	5.693	13.315			
			0.045		
31	5.680	13.370			
			0.065		
32	5.665	13.435			
			0.055		
33	5.652	13.490			
			0.055		
34	5.637	13.555			
			0.060		
35	5.624	13.615			
			0.060		
36	5.610	13.675			
			0.065		
37	5.595	13.740			
			0.060		
38	5.582	13.800			
			0.060		
39	5.569	13.860			
			0.055		
40	5.556	13.915			
			0.070		
41	5.540	13.985			
			0.070		



# TEMPERATURE DEPTH LOG

ΔT Well No. 11

Property-Project LA GRANDE Depth Logged \_\_\_\_\_

Map \_\_\_\_\_ Scale \_\_\_\_\_ Date: Drilled \_\_\_\_\_ Logged \_\_\_\_\_

State \_\_\_\_\_ County \_\_\_\_\_ Section \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_

Instrument \_\_\_\_\_ Operator \_\_\_\_\_ Elevation \_\_\_\_\_ ft.

Comments \_\_\_\_\_

## COMPUTER PROCESSING

RT JUSTIFY: **Card A**

Proj No				Well No						Date Logged			*
1	2	3	4	5	6	7	8	9	10	DA	MO	YR	*
6	4	3						1	1	1	3	MY	75
													CM

\* 19- Write F if Fahrenheit, 20- Write F if Feet

Site Description																																																Operator				Editor			
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60																
6.9 KM SSE OF UNION, OREGON																																																DP				HLH			

**Card B**

Scale Unit		Map Size		Map Location <sup>Δ</sup>				W Long					
in	cm	(7.5, 15., 60)	cm	N Lat		Degree		Min		Degree		Min	
CM		7.5		46		7.5		117		52		5	

Use decimals

Δ Measure from SW corner of map; except AMS sheets measure from bottom center degree mark (W, -) (E, +)

Northing						Easting						Elev																	
51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
7.1						8.2						3220.																	

Use decimals

Write M if meters

	SEGMENT DEPTH		K	ΔK
	Start	End		
C	12.0	22.0		
D	36.0	46.0	-4.7	-.5
E	.999			
F				
G				

Continue each card below.

	SEGMENT DEPTH		K	ΔK
	Start	End		
C	24.0	34.0		
D	46.0	50.0		
E				
F				
G				

Final Segment: Start = .999

TEMPERATURE - DEPTH LOG

Location La Grande, Oregon Date May 13, 1975

Map Union Quadrangle

Property T 5 S R 40 E sec SE 1/4 7

Drill Hole LG-11 Date Drilled April 23, 1975 Elevation 3220 ft.

Instrument \_\_\_\_\_ Operator H.D. Pilkington

Comments Logged at 1430 hrs. Filled with H<sub>2</sub>O date drilled

Depth (meters)	Instr. Reading	Temp. °C	ΔT	Gradient °C/Km Avg.	Comments
0	7.251	7.450	-1.660		
1	7.781	5.790	0.505		
2	7.616	6.295	0.795		
3	7.364	7.090	0.855		
4	7.104	7.945	0.585		
5	6.933	8.525	0.390		
6	6.821	8.915	0.220		
7	6.759	9.135	0.135		
8	6.721	9.270	0.250		
9	6.651	9.520	0.015		
10	6.648	9.535	0.000		
11	6.647	9.535	0.025		
12	6.645	9.560	0.030		
13	6.632	9.590	0.045		
14	6.620	9.635	0.055		
15	6.605	9.690	0.065		
16	6.587	9.755	0.050		
17	6.573	9.805	0.040		
18	6.543	9.845	0.030		
19	6.554	9.875	0.050		
20	6.540	9.925	0.065		

TEMPERATURE - DEPTH LOG

Location \_\_\_\_\_ Date \_\_\_\_\_

Map \_\_\_\_\_

Property \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_ sec \_\_\_\_\_

Drill Hole \_\_\_\_\_ Date Drilled \_\_\_\_\_ Elevation \_\_\_\_\_ ft.

Instrument \_\_\_\_\_ Operator \_\_\_\_\_

Comments \_\_\_\_\_

Depth (meters)	Instr. Reading	Temp. °C	ΔT	Gradient °C/Km Avg.	Comments
21	6.523	9.990			
22	6.520	10.000	0.010		
23	6.516	10.015	0.015		
24	6.446	10.275	0.260		
25	6.422	10.365	0.090		
26	6.399	10.455	0.090		
27	6.381	10.525	0.070		
28	6.364	10.585	0.060		
29	6.348	10.650	0.065		
30	6.335	10.700	0.050		
31	6.318	10.765	0.065		
32	6.301	10.830	0.065		
33	6.284	10.895	0.065		
34	6.263	10.975	0.060		
35	6.239	11.070	0.095		
36	6.210	11.185	0.115		
37	6.209	11.185	0.015		
38	6.206	11.200	0.015		
39	6.199	11.225	0.025		
40	6.191	11.260	0.035		
41	6.184	11.285	0.025		
42			0.025		





# TEMPERATURE DEPTH LOG

ΔT Well No. 12

Property-Project LA GRANDE Depth Logged \_\_\_\_\_  
 Map \_\_\_\_\_ Scale \_\_\_\_\_ Date: Drilled \_\_\_\_\_ Logged \_\_\_\_\_  
 State \_\_\_\_\_ County \_\_\_\_\_ Section \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_  
 Instrument \_\_\_\_\_ Operator \_\_\_\_\_ Elevation \_\_\_\_\_ ft.  
 Comments \_\_\_\_\_

## COMPUTER PROCESSING

RT JUSTIFY: **Card A**

Proj No				Well No						Date Logged									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
										DA	MO	YR	*						
643				1215						M	Y	75	CM						

\* 19- Write F if Fahrenheit, 20- Write F if Feet

Site Description																																																Operator				Editor			
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60																
0.6 KM WNW OF TOLONSET, ORE																																																DP				MLH			

**Card B**

Scale Unit				Map Size						Map Location <sup>Δ</sup>									
in				(7.5, 15., 60)						N Lat		W Long							
cm										Degree	Min	Degree	Min	Degree	Min				
CM				7.5						45	00	117	52						

Use decimals

Northing										Easting										Elev											
51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80		
47.1										13.7										34.70				F							

Use decimals

△ Measure from SW corner of map; except AMS sheets measure from bottom center degree mark (W,-)(E,+)

Write M if meters ←

	SEGMENT DEPTH		K	ΔK																												
	Start	End																														
	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50		
C	14.0				26.0																											
D	.999																															
E																																
F																																
G																																

Continue each card below.

	SEGMENT DEPTH		K	ΔK																												
	Start	End																														
	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80		
C	26.0				48.0																-4.8		-.5									
D																																
E																																
F																																
G																																

Final Segment: Start = .999

TEMPERATURE - DEPTH LOG

Location La Grande Oregon Date May 15

Map Tolocaset Quadrangle

Property T 5 S R 40 E sec NE 1/4 29

Drill Hole LG-12 Date Drilled April 25, 1975 Elevation 3470 ft.

Instrument \_\_\_\_\_ Operator H. D. Pilkington

Comments Logged at 1530 hrs Filled with H<sub>2</sub>O date drilled

Depth (meters)	Instr. Reading	Temp. °C	ΔT	Gradient °C/Km Avg.	Comments
0	6.975	8.380	-1.955		
1	7.574	6.425	0.390		
2	7.450	6.815	1.100		
3	7.112	7.915	0.940		
4	6.838	8.855	0.905		
5	6.585	9.760	0.470		
6	6.489	10.230	0.215		
7	6.402	10.445	0.035		
8	6.392	10.480	-0.015		
9	6.396	10.465	-0.025		
10	6.403	10.440	-0.035		
11	6.412	10.405	-0.015		
12	6.416	10.390	0.005		
13	6.415	10.395	0.055		
14	6.400	10.450	0.000		
15	6.400	10.450	0.010		
16	6.397	10.460	0.015		
17	6.393	10.475	0.010		
18	6.391	10.485	0.025		
19	6.389	10.490	0.000		
20	6.388	10.490	0.015		

TEMPERATURE - DEPTH LOG

Location \_\_\_\_\_ Date \_\_\_\_\_

Map \_\_\_\_\_

Property \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_ sec \_\_\_\_\_

Drill Hole \_\_\_\_\_ Date Drilled \_\_\_\_\_ Elevation \_\_\_\_\_ ft.

Instrument \_\_\_\_\_ Operator \_\_\_\_\_

Comments \_\_\_\_\_

Depth (meters)	Instr. Reading	Temp. °C	ΔT	Gradient °C/Km Avg.	Comments
21	6.386	10.505			
22	6.384	10.510	0.005		
23	6.380	10.525	0.015		
24	6.377	10.540	0.015		
25	6.376	10.540	0.000		
26	6.374	10.550	0.010		
27	6.356	10.620	0.070		
28	6.347	10.650	0.030		
29	6.342	10.670	0.020		
30	6.338	10.680	0.010		
31	6.334	10.700	0.020		
32	6.330	10.715	0.015		
33	6.325	10.735	0.020		
34	6.319	10.760	0.025		
35	6.315	10.775	0.015		
36	6.310	10.795	0.020		
37	6.303	10.820	0.035		
38	6.296	10.850	0.030		
39	6.291	10.865	0.015		
40	6.286	10.885	0.020		
41	6.279	10.915	0.030		
			0.020		



# TEMPERATURE DEPTH LOG

ΔT Well No. 14

Property-Project LA GRANDE Depth Logged \_\_\_\_\_  
 Map \_\_\_\_\_ Scale \_\_\_\_\_ Date: Drilled \_\_\_\_\_ Logged \_\_\_\_\_  
 State \_\_\_\_\_ County \_\_\_\_\_ Section \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_  
 Instrument \_\_\_\_\_ Operator \_\_\_\_\_ Elevation \_\_\_\_\_ ft.  
 Comments \_\_\_\_\_

## COMPUTER PROCESSING

RT JUSTIFY: **Card A**

Proj No				Well No						Date Logged			*						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
→				→						DA MO YR			*						
6	4	3								1	4	1	3	M	Y	7	5	C	M

\* 19- Write F if Fahrenheit, 20- Write F if Feet

Site Description																																																						Operator				Editor	
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60																				
2.1 KM NNE OF UNION JUNCTION																																																						DF				MLH	

**Card B**

Scale Unit		Map Size		Map Location <sup>Δ</sup>				W Long				Δ Measure from SW corner of map; except AMS sheets measure from bottom center degree mark (W,-)(E,+)																	
in	cm	(7.5, 15., 60)	cm	N Lat		Degree		Min		Degree			Min																
21	22	23	24	25	26	27	28	29	30	31	32		33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49
CM					7	5				4	6				7	5				1	1	8			0	0			

Use decimals

Northing						Easting						Elev		Write M if meters																			
51	52	53	54	55	56	57	58	59	60	61	62	63	64		65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80			
						4	5	.	7						3	2	.	5	2	7	2	0	.										

Use decimals

	SEGMENT DEPTH																																		
	Start				End				K				ΔK																						
	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50					
C	1	5	.	0							2	0	.	0							-	3	.	9							-	.	5		
D																																			
E																																			
F																																			
G																																			

Continue each card below.

	SEGMENT DEPTH																																		
	Start				End				K				ΔK																						
	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80					
C	.	9	9	9																															
D																																			
E																																			
F																																			
G																																			

Final Segment: Start = .999

TEMPERATURE - DEPTH LOG

Location La Grande Oregon Date May 13, 1975

Map Craig Mountain Quadrangle

Property T 4 S R 39 E sec SE 1/4 11

Drill Hole LG-14 Date Drilled April 28, 1975 Elevation 2720 ft.

Instrument \_\_\_\_\_ Operator H.D. Pilkington

Comments Logged at 1145 hours. PVC Filled with H<sub>2</sub>O date drilled.

Depth (meters)	Instr. Reading	Temp. °C	ΔT	Gradient °C/Km Avg.	Comments
0	4.100	2.645			Air
1	7.281	7.360	-14.285		
2	7.312	7.260	-0.100		
3	7.121	7.885	0.425		
4	6.875	8.725	0.840		
5	6.670	9.455	0.730		
6	6.520	10.000	0.545		
7	6.422	10.365	0.765		
8	6.376	10.540	0.175		
9	6.348	10.650	0.110		
10	6.333	10.705	0.055		
11	6.322	10.750	0.045		
12	6.313	10.780	0.030		
13	6.307	10.805	0.025		
14	6.303	10.820	0.015		
15	6.294	10.855	0.035		
16	6.279	10.915	0.060		
17	6.254	11.010	0.095		
18	6.229	11.110	0.100		
19	6.213	11.170	0.060		
20	6.200	11.220	0.050		
99999					

Average Gradient 8 - 20 m = 60°C/Km

11.220  
10.540  
0.680