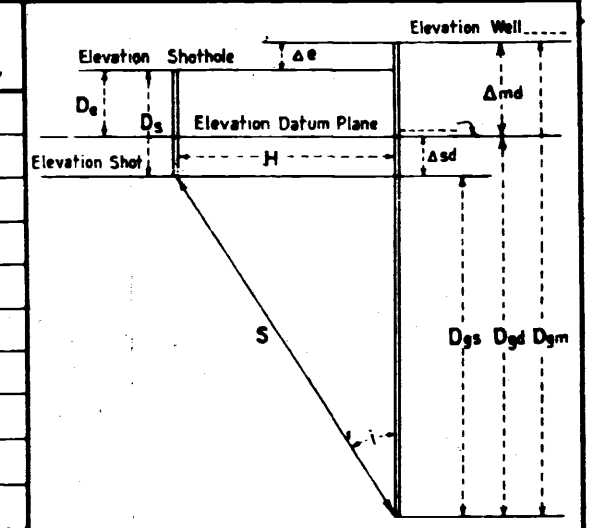


Shot-hole information - Elevation, Distance & Direction from Well									Company				Well		Elevation (Derrick Floor)		Total Depth		LOCATION				
									S.D.A.				ROWANS # 1		232' 5900'		Coordinates Section, Township, Range County Area or Field						
Record Number	Shot-hole Number	Dgm	Ds	tus	tr	T			Dgs	H	cotani	cos i	Tgs	Δsd	Δsd/V	Tgd	Tgd Average	Dgd	ΔDgd	ΔTgd	Vi Interval Velocity	Va Average Velocity	
						Reading	Polarity	Grade															
18		1800	74	18	90	214			1712	500	.2921	.9599	.206	144	.024	.182	.182	1568					
17		1800	74	18	89	215			1712	500	.2921	.9599	.207	144	.024	.183							
1		2600	74	18	86	338			2509	500	.1993	.9807	.331	144	.024	.307	.307	2368					
2		3000	74	19	86	338			2909	500	.1719	.9856	.332	144	.024	.308	.308	2768					
16		3000	74	18	86	320			2912	500	.1717	.9856	.315	144	.024	.291							
3		3500	74	18	91	.361			3411	500	.1466	.9894	.355	144	.024	.356		3268					
15		3500	74	18	90	.455			3412	500	.1465	.9894	.455	144	.024	.450							
4		4000	74	19	89	504			3911	500	.1279	.9919	.500	144	.024	.476	.476	3768					
14		4000	74	20	85	509			3913	500	.1278	.9919	.501	145	.024	.477							
5		4500	74	19	88	555			4411	500	.1134	.9937	.551	143	.024	.527		4268					
12		4500	74	20	89	559			4412	500	.1133	.9937	.555	144	.024	.531	.529						
13		4500	74	20	87	563			4412	500	.1134	.9937	.559	143	.024	.531							
6		5000	74	20	86	605			4911	500	.1018	.9949	.602	143	.024	.578	.580	4768					
11		5000	74	16	86	610			4912	500	.1018	.9949	.607	144	.024	.583							
7		5500	74	20	86	646			5411	500	.0924	.9957	.643	143	.024	.619	.622	5268					
10		5500	74	19	90	652			5412	500	.0924	.9957	.649	144	.024	.625							
8		5900	74	20	85	685			5811	500	.0861	.9963	.683	143	.024	.659	.657	5668					
9		5900	74	-	93	682			5812	500	.0861	.9963	.680	144	.024	.656							



Dgm = Geophone depth measured from well elevation.  
Dgs = Geophone depth measured from shot elevation.  
Dgd = Geophone depth measured from datum elevation.  
Ds = Depth of shot.  
De = Shot-hole elevation to datum plane.  
H = Horizontal distance from well to shotpoint.  
S = Straight line travel path from shot to well geophone.  
tus = Uphole time at shotpoint.  
T = Observed time from shotpoint to well geophone.  
tr = Observed time to reference geophone.  
Δe = Difference in elevation between well and shotpoint.  
Δsd = Difference in elevation between shot and datum plane.  
Δsd = Ds - De  
Dgs = Dgm - Ds ± Δe; tan i = H/Dgs  
Tgs = cos i T = Vert. travel time from shot elev. to geophone.  
Tgd = Tgs ± Δsd/V = Vert. travel time from datum plane to geophone.  
Dgd = Dgm - Δmd  
Vi = Interval velocity = ΔDgd / ΔTgd  
Va = Average velocity = Dgd / Tgd

Surveyed by: HORNE  
Date: \_\_\_\_\_  
Weathering Data:  
uphole shoot/refraction  
Casing Record

Well Velocity Calculation Form  
Figure 7