

VSP Preliminary Data Sheet

Radiation Pattern

Date: 8 July 98

Type of Phones 0/0 14N7

1. Well Name B4

2. Location of Well

X= 1000.02749 Y= 9997.36469 Z= 850.11934

Casing Elevation: 850.11934

3. Depth to top of water table (measured from CE) 7.37 ft.

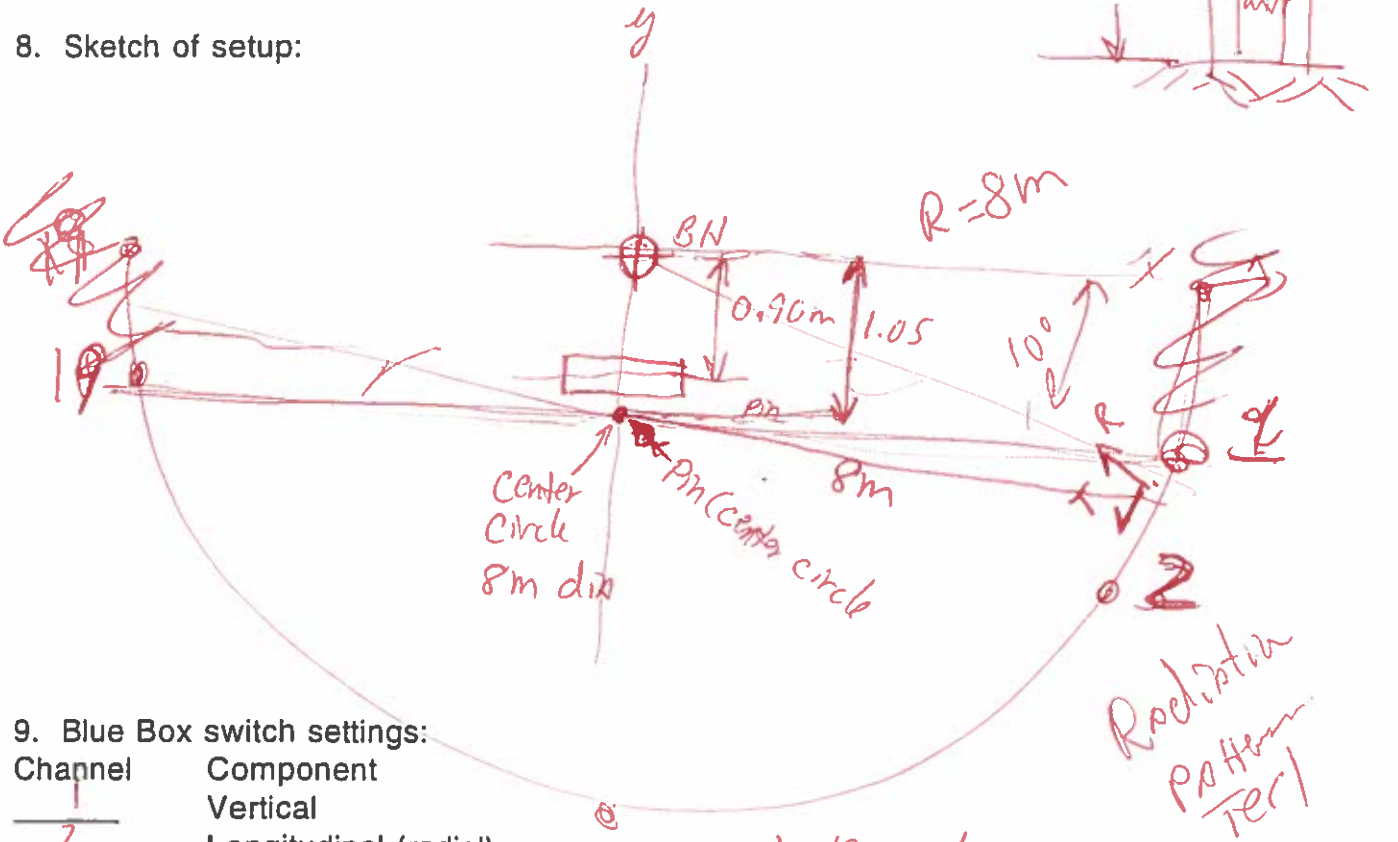
4. Casing Elevation, distance above ground level= .624

5. Reference ^{borehole} phone offset from borehole= 0

6. Reference ^{borehole} phone depth below ground level= 8.624 (8 sub 6)

7. Source Offset from borehole= 0.90m south

8. Sketch of setup:



9. Blue Box switch settings:

Channel	Component
<u>1</u>	Vertical
<u>2</u>	Longitudinal (radial)
<u>3</u>	Transverse

Roler Reversed
Borehole phone = Ref.
"Ref". Blue Phone → moves, 10° steps

.376
.824
1.000

.750
.126
.624

Radiation Pattern Terl

BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole
Casing Elevation: 90' m above G.L.

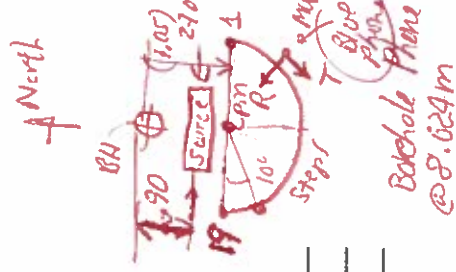
Reference Phone: Offset: m

Azimuth x-axis: 90°
Azimuth y-axis: 0°

Well Coord: X = 1000.02749 Y = 9997.36469 Z = 850.11934
Channel Configuration: Borehole Phone V=Channel 1 R=Channel 2 T=Channel 3
Reference Phone V=Channel 4 R=Channel 5 T=Channel 6

Date: 8 July 98 Location: BA URISP
High-Cut 1000 Low-Cut 4 Sample Int. .0002 Number Samples 2500

Ref. Polarization: Az 0 Vert. 0
V 0 R 90 T 90



Sub CE
Constant
Reference

Center
Circle
Pin
at
1.05m
South
BH

Shot	Borehole Phone	Source	Offset	Elev.	X	Y	Azimuth	Vertical
1		8.0m	8.0m	90			270	135
2		8.0m	8.0m	90			90	135
3				100			270	
4				100			90	
5				110			270	
6				110			90	
7				120			270	
8				120			90	
9				130			270	
10		N		130			90	

$\frac{V}{Z} = +847.8730m$

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Radiation Pattern Test

BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole
 Casing Elevation: 90° m above G.L.
 Azimuth x-axis: 0°
 Azimuth y-axis: 0°
 Well Coord: X = 1000.02749 Y = 9997.36469 Z = 850.11934
 Channel Configuration: Borehole Phone V=Channel 1 Reference Phone V=Channel 4 Az 0 Vert. 0
 R=Channel 2 R=Channel 5 R 0 90
 T=Channel 3 T=Channel 6 T 270 90
 Date: 8 July 98 Location: BA URISP
 High-Cut 1000 Low-Cut 4 Sample Int. .0002 Number Samples 2500

Shot	Borehole Phone			Source	Source			Source Polarization		
Rec.	File	Depth	Elev.	Offset	Azimuth	Elev.	X	Y	Azimuth	Vertical
	<u>11</u>			<u>8.0</u>	<u>140</u>				<u>270</u>	
	<u>12</u>				<u>140</u>				<u>90</u>	
	<u>13</u>				<u>150</u>				<u>270</u>	
	<u>14</u>				<u>150</u>				<u>90</u>	
	<u>15</u>				<u>160</u>				<u>270</u>	
	<u>16</u>				<u>160</u>				<u>90</u>	
	<u>17</u>				<u>170</u>				<u>270</u>	
	<u>18</u>				<u>170</u>				<u>90</u>	
	<u>19</u>				<u>180</u>				<u>270</u>	
	<u>20</u>				<u>180</u>				<u>90</u>	

BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole
 Casing Elevation: 90° m above G.L.
 Azimuth x-axis: 0°
 Azimuth y-axis: 0°
 Well Coord: X = 1000.02749 Y = 9997.36469 Z = 850.11934
 Channel Configuration: Borehole Phone V=Channel 1 R=Channel 2 T=Channel 3
 Reference Phone V=Channel 4 R=Channel 5 T=Channel 6
 Ref. Polarization: Az 0 V 0 R 90 T 90
 Date: 8 July 98 Location: BA URISP
 High-Cut 1000 Low-Cut 4 Sample Int. .0002 Number Samples 2500

Shot		Borehole Phone			Source			Source Polarization		
Rec.	File	Depth	Elev.	Offset	Azimuth	Elev.	X	Y	Azimuth	Vertical
	<u>21</u>			<u>8.0m</u>	<u>190</u>				<u>270</u>	
	<u>22</u>				<u>190</u>				<u>90</u>	
	<u>23</u>				<u>200</u>				<u>270</u>	
	<u>24</u>				<u>200</u>				<u>90</u>	
	<u>25</u>				<u>210</u>				<u>270</u>	
	<u>26</u>				<u>210</u>				<u>90</u>	
	<u>27</u>				<u>220</u>				<u>270</u>	
	<u>28</u>				<u>220</u>				<u>90</u>	
	<u>29</u>				<u>230</u>				<u>270</u>	
	<u>30</u>				<u>230</u>				<u>90</u>	

Radiation Pattern

BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole
 Casing Elevation: 90' m above G.L.
 Azimuth x-axis: 90°
 Azimuth y-axis: 0°
 Well Coord: X = 1000.02749 Y = 9997.36469 Z = 850.11934
 Channel Configuration: Borehole Phone
 V=Channel 1
 R=Channel 2
 T=Channel 3
 Reference Phone
 V=Channel 4
 R=Channel 5
 T=Channel 6
 Ref. Polarization: Az 0
 V 0
 R 90
 T 90
 Offset: m
 Azimuth m below G.L.
 Elev. m
 X = m
 Y = m

Date: 8 July 98 Location: BA URISP
 High-Cut 1000 Low-Cut 4 Sample Int. .0002 Number Samples 2500

Shot	File	Depth	Elev.	Offset	Azimuth	Elev.	X	Y	Azimuth	Vertical	Source Polarization
	<u>31</u>			<u>8.0m</u>	<u>240</u>				<u>270</u>		
	<u>32</u>				<u>240</u>				<u>90</u>		
	<u>33</u>				<u>250</u>				<u>270</u>		
	<u>34</u>				<u>250</u>				<u>90</u>		
	<u>35</u>				<u>260</u>				<u>270</u>		
	<u>36</u>				<u>260</u>				<u>90</u>		
	<u>37</u>				<u>270</u>				<u>270</u>		
	<u>38</u>				<u>270</u>				<u>90</u>		
	<u> </u>										
	<u> </u>										

Radiation Pattern