

APPENDIX G

CASE HISTORY (RESEARCH QUESTIONNAIRE)

ASSR

Research questionnaire

Ind no. : _____
 Study no. : _____
 Date : _____
 Date of birth : _____
 Mine : _____
 Audiologist : _____

1. Otoscopy

<u>Landmarks</u>	L	R	<u>Cerumen</u>	L	R
Cone of light	_____	_____	Occluding	_____	_____
			Minimal	_____	_____
			Excessive	_____	_____
			None	_____	_____

<u>Tympanic membrane</u>	L	R	<u>External canal</u>	L	R
Normal	_____	_____	Normal	_____	_____
Dull	_____	_____	Red/Swollen	_____	_____
Perforated	_____	_____	Foreign body	_____	_____
Scarring	_____	_____	Growth	_____	_____
			Drainage	_____	_____
			Blood	_____	_____
			Collapsed	_____	_____

2. **Immittance measurements**

	L	R
Compliance	_____	_____
Volume	_____	_____
Pressure	_____	_____
Reflex ipsilateral 1000 Hz	_____	_____

3. **Specific ear and medical history**

Head injuries:

Blow to head, accidents

Ear operations:

Injury to ears:

Blood draining from ear

Barotrauma:

- Medical history
 - Air from ear when blowing nose
-

Middle ear pathology:

Ear infections

- Pain
 - Discharge
-

Ototoxic drugs:

- TB
 - Malaria
 - Intensive care
-

Job history:

- Years underground
- Job description

4. **Diagnostic audiogram:**

Attach copy of diagnostic audiogram

5. **ASSR estimated audiogram**

Attach copy of printout

Time taken to complete ASSR test _____

Type ASSR test _____

6. **Comparison of pure-tone and ASSR threshold**

Left ear

Right ear

KHz

KHz

Description	Date	.5 KHz	1	2	3	4	.5	1	2	3	4
ASSR threshold											
Pure tone-threshold											

Certificate of Calibration

This is to certify that on August, 30 2002

GSI 38V 2 AUTO TYP

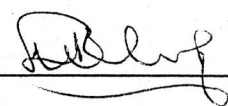
Serial Number : 989057

was calibrated by **NS Clinical Technologies (Pty) Ltd.**

The above instrument complies with:

- IEC 1027 : Instruments for the measurement of
Aural acoustic Impedance / Admittance
- IEC 601 - 1 : Safety of Medical Electric Equipment

Calibration Officer: W. DE KLERK

Signature: 

Certificate of Calibration

This is to certify that on August, 30 2002

AccuTYP 100

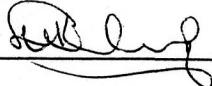
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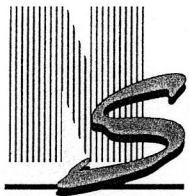
was calibrated by **NS Clinical Technologies (Pty) Ltd.**

The above instrument complies with:

- IEC 1027 : Instruments for the measurement of Aural acoustic Impedance / Admittance
- IEC 601 - 1 : Safety of Medical Electric Equipment

Calibration Officer: W. DE KLERK

Signature: 



**NS CLINICAL
TECHNOLOGIES**
PTY LTD

Tel : + 27 [012] 460-7676
Fax : + 27 [012] 460-7676

AUDIOMETER CALIBRATION CERTIFICATE

Calibration Officer: WILLIAM DE KLERK	Cert. No: 558/NS/2002
--	-----------------------

SITE OF CALIBRATION

Company	ELIZE DE KOKER
Address	P O BOX 3397
	KENMERE
	1745

UNIT UNDER CALIBRATION

SUBJECT	MAKE	MODEL	SERIAL NO.
Audiometer	MADSEN	OB 822	26644
Earphone Left	TELEPHONICS	TDH-39P	C 38929
Earphone Right	TELEPHONICS	TDH-39P	C 38923
Bone Vibrator	RADIO EAR	B 71	1886448

CALBRATION EQUIPMENT

ITEM	MODEL	SERIAL NO.
Sound Level Meter	Quest 1800	HP 8110015
Sound Level Calibrator	Quest QC-20	QO 9090053
1/3 Octave Filter	Quest OB-300	HV 8120023
Frequency Counter	Fluke 87	52151118
Artificial Ear	Bruël & Kjaer 4153	1509914
Artificial Mastoid	Bruel & Kjaer 4930	1727445
Calibration date : DECEMBER 2001		Calibration Cert.No: 2001-361De Beer Calibration Services

TEST ENVIRONMENT CONDITIONS

Wide Band Background Noise Level: 68.4 dB.	Background Noise Level @ 4000Hz: 20.3 dB
Calibration Signal: Before: 114.0 dB.	Calibration Signal: After: 114.0 dB.

COMPLIANCE OF EQUIPMENT

1. This audiometer is hereby certified as calibrated in accordance with SABS 0154-1&2:1996 for Pure-tone Audiometers.	YES
2. This audiometer is hereby certified as calibrated in accordance with ISO 389-4 for Narrow Band and Masking Noise.	YES
3. This audiometer is hereby certified as calibrated in accordance with ISO 389-7 for Sound Field System.	NO
4. This audiometer is hereby certified as calibrated in accordance with IEC 645-2 for Speech Audiometry.	YES
5. Remarks : This certificate was issued at : DRIEFONTEIN MINE	
Certificate expires on:	30-08-2003

NOTES

1. This certificate is valid for a period of 12 months(subject to exceptions given in SABS 0154-1996,section 6)
2. This certificate relates only to the specific item(s) listed above and does not imply compliance in respect of a similar item that has not been examined.
3. While every endeavour is made to ensure that this certificate is accurate, NS Clinical Technologies PTY LTD or its representatives shall in no way be liable for any errors, whether in fact or opinion.

SIGNATURE

30-08-2002

DATE

AUDIOMETER CALIBRATION CERTIFICATE

Calibration Officer: **WILLIAM DE KLERK**

Cert. No: 443/NS/2002

SITE OF CALIBRATION

Company	ELIZE DE KOKER – PHUMLANI HEARCARE
Address	P O BOX 3397
	KENMERE
	1745

UNIT UNDER CALIBRATION

SUBJECT	MAKE	MODEL	SERIAL NO.
Audiometer	GSI	61	981496
Earphone Left	TELEPHONICS	TDH-50P	C 02184
Earphone Right	TELEPHONICS	TDH-50P	C 02188
Bone Vibrator	RADIO EAR	B 71	-----

CALBRATION EQUIPMENT

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Calibration date : DECEMBER 2001		Calibration Cert.No: 2001-361De Beer Calibration Services

TEST ENVIRONMENT CONDITIONS

Wide Band Background Noise Level: 69.9 dB.	Background Noise Level @ 4000Hz: 20.3 dB
Calibration Signal: Before: 114.0 dB.	Calibration Signal: After: 114.0 dB.

COMPLIANCE OF EQUIPMENT

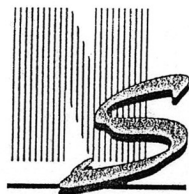
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SIGNATURE

30-08-2002
DATE



NS CLINICAL
TECHNOLOGIES

PTY LTD

30 August 2002

Att : Elize de Koker

P O BOX 3397
KENMERE
1745

EVALUATION OF AUDIOMETRIC TEST SITE

1. Purpose of Test

To determine if the proposed site would meet the requirements of *SABS Code of Practice 0182-1998* "Obtaining an Acoustic Environment suitable for Diagnostic Audiometric Testing".

2. Test Site

The sound level measurements were performed by Mr W de Klerk on 30 August 2002 at Driefontein Mine. The sound level measurements were performed inside the Audiometric Test Enclosure.

3. Test Equipment

- | | | | |
|----|-------------------------|-------------|-------------|
| 1. | Sound Level Meter: | Quest 1800 | #HP 8110015 |
| 2. | Sound Level Calibrator: | Quest QC-20 | #QO 9090053 |
| 3. | Octave Band Filter: | Quest OB300 | #HV 8120023 |
| 4. | Microphone: | B & K 4134 | #1743885 |

The equipment was certified as accurate by De Beer Calibration Services in December 2001. The calibration certificate number for the above mentioned equipment is 2001-361.

Calibration Signal: Before: 114,0dB After: 114,0dB.

4. Test Procedure

The test procedure outlined in SABS 0182-1998 paragraph 5.5 was followed to obtain the readings noted in table 1.

5. Test Results

Octave Band Frequencies (Hz)	Maximum Sound Pressure Level Allowed in dB (SABS – 0182)	Sound Pressure Levels Obtained at Test Site (dB)
125	29.0	27.8
250	21.0	20.0
500	20.5	19.4
1000	24.0	13.2
2000	31.0	12.1
4000	37.0	12.2
8000	35.5	13.8

TABLE .1

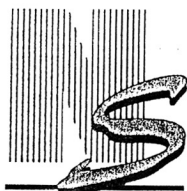
6. Conclusion

As can be seen from the above results the measured sound pressure levels are all below the recommended sound pressure levels for diagnostic audiometry according to SABS 0182-1998. The audiometric booth is therefore suitable for diagnostic audiometry, at the site mentioned in point 2 of this report.

Best Regards



WILLIAM DE KLERK



NS CLINICAL
TECHNOLOGIES

PTY LTD

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30 August 2002

Att : Elize de Koker

PHUMLANI HEARCARE
P O BOX 3397
KENMERE
1745

EVALUATION OF AUDIOMETRIC TEST SITE

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2. Test Site

The sound level measurements were performed by Mr W de Klerk on 30 August 2002 at Phumlani Hearcare in Randfontein. The sound level measurements were performed inside the Acousti Boothr [L] Audiometric Test Enclosure.

3. Test Equipment

- | | | | |
|----|-------------------------|-------------|-------------|
| 1. | Sound Level Meter: | Quest 1800 | #HP 8110015 |
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1000	24.0	12.7
2000	31.0	11.9
4000	37.0	11.9
8000	35.5	13.7

TABLE .1

6. Conclusion

As can be seen from the above results the measured sound pressure levels are all below the recommended sound pressure levels for diagnostic audiometry according to SABS 0182-1998. The audiometric booth is therefore suitable for diagnostic audiometry, at the site mentioned in point 2 of this report.

Best Regards



WILLIAM DE KLERK