

LABORATORIO DE ENSAYO DE MATERIALES
INFORME DE ENSAYO N°446-25 SU22

CLIENTE : ORGANISMO DE ESTUDIOS Y DISEÑO DE PROYECTOS DE INVERSIÓN (OEDI) **CÓDIGO** : F-LEM-P-SU-22.02
DIRECCIÓN ** : AV. JAVIER PRADO OESTE NRO. 2108 URB. SANTA ROSA - SAN ISIDRO - LIMA - LIMA - PERU **RECEPCIÓN N°** : 1171-25
PROYECTO ** : MEJORAMIENTO DEL SERVICIO DE ATENCIÓN DE SALUD BÁSICOS EN MANTARO, DISTRITO DE UNIÓN ASHANINKA DE LA PROVINCIA DE LA CONVENCIÓN DEL DEPARTAMENTO DE CUSCO **F.EMISIÓN** : 2025-09-16
UBICACIÓN ** : ENTRE LAS AV. SANTUSHARI, AV. SIN NOMBRE Y EL JR. LAS HORTENCIAS, SECTOR RÍO NEGRO
** Datos proporcionados por el cliente

| DATOS DE LA MUESTRA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|------------------------|-----------------------------------|-------|--------------------------------------|------------|----------------------|-----------|-----------------------|------------------------|------|-------|------|------|-------|-------|------|---------|-------|------|---|-----------------------------|--|--|--|-----------|--|--|--|-----------|--|--|--|---------|------|--------|------|------|------|---------|------|--------|------|-------|------|------|-----|--------|------|--|------|----|--|----|--|----|--|----|--|----|--|----|--|
| CANTERA/SONDAJE** : C-2 | | CÓDIGO DE LA MUESTRA : 1833-SU-25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| N° MUESTRA ** : M-2 | | FECHA DE RECEPCIÓN : 2025-09-04 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TIPO DE MUESTRA ** : SUELO | | FECHA DE EJECUCIÓN : 2025-09-05 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| LUGAR DE ENSAYO : LABORATORIO DE ENSAYOS DE MATERIALES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table><tr><th colspan="2">Tamiz</th><th rowspan="2">% que Pasa</th></tr><tr><th>in.</th><th>mm.</th></tr><tr><td>No.4</td><td>4.75</td><td>61.9</td></tr><tr><td>No.10</td><td>2.00</td><td>45.4</td></tr><tr><td>No.40</td><td>0.425</td><td>20.8</td></tr><tr><td>No. 200</td><td>0.075</td><td>13.8</td></tr></table> | | | Tamiz | | % que Pasa | in. | mm. | No.4 | 4.75 | 61.9 | No.10 | 2.00 | 45.4 | No.40 | 0.425 | 20.8 | No. 200 | 0.075 | 13.8 | <table><tr><th colspan="4">Distribución granulométrica</th></tr><tr><td colspan="2">% BOLONES</td><td colspan="2"></td></tr><tr><td colspan="2">% BLOQUES</td><td colspan="2"></td></tr><tr><td rowspan="2">% GRAVA</td><td rowspan="2">38.1</td><td>Gruesa</td><td>11.0</td></tr><tr><td>Fina</td><td>27.2</td></tr><tr><td rowspan="3">% ARENA</td><td rowspan="3">48.0</td><td>Gruesa</td><td>16.5</td></tr><tr><td>Media</td><td>27.6</td></tr><tr><td>Fina</td><td>3.9</td></tr><tr><td>% FINO</td><td>13.8</td><td></td><td>13.8</td></tr><tr><td colspan="2">LL</td><td colspan="2">50</td></tr><tr><td colspan="2">LP</td><td colspan="2">37</td></tr><tr><td colspan="2">IP</td><td colspan="2">13</td></tr></table> | Distribución granulométrica | | | | % BOLONES | | | | % BLOQUES | | | | % GRAVA | 38.1 | Gruesa | 11.0 | Fina | 27.2 | % ARENA | 48.0 | Gruesa | 16.5 | Media | 27.6 | Fina | 3.9 | % FINO | 13.8 | | 13.8 | LL | | 50 | | LP | | 37 | | IP | | 13 | |
| Tamiz | | % que Pasa | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| in. | mm. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| No.4 | 4.75 | 61.9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| No.10 | 2.00 | 45.4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| No.40 | 0.425 | 20.8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| No. 200 | 0.075 | 13.8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Distribución granulométrica | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| % BOLONES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| % BLOQUES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| % GRAVA | 38.1 | Gruesa | 11.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Fina | 27.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| % ARENA | 48.0 | Gruesa | 16.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Media | 27.6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Fina | 3.9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| % FINO | 13.8 | | 13.8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| LL | | 50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| LP | | 37 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| IP | | 13 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table><tr><td>D10</td><td>0.057</td></tr><tr><td>D30</td><td>0.9</td></tr><tr><td>D60</td><td>4.4</td></tr><tr><td>Cu</td><td>77.9</td></tr><tr><td>Cc</td><td>3.5</td></tr></table> | | | | D10 | 0.057 | D30 | 0.9 | D60 | 4.4 | Cu | 77.9 | Cc | 3.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| D10 | 0.057 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| D30 | 0.9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| D60 | 4.4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cu | 77.9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cc | 3.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System) D2487-17 (Reapproved 2025) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table><tr><th colspan="2">SISTEMA UNIFICADO CLASIFICACIÓN SUCS</th></tr><tr><td>Símbolo de Grupo</td><td>SM</td></tr><tr><td>Denominación de Grupo</td><td>Arena limosa con grava</td></tr></table> | | | | SISTEMA UNIFICADO CLASIFICACIÓN SUCS | | Símbolo de Grupo | SM | Denominación de Grupo | Arena limosa con grava | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SISTEMA UNIFICADO CLASIFICACIÓN SUCS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Símbolo de Grupo | SM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Denominación de Grupo | Arena limosa con grava | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Standard Practice for Classification of Soils and Soil-Aggregate Mixtures for Highway Construction Purposes D3282-24 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table><tr><th colspan="2">SISTEMA DE CLASIFICACIÓN AASHTO</th></tr><tr><td>Clasificación AASHTO</td><td>A-2-7 (0)</td></tr></table> | | | | SISTEMA DE CLASIFICACIÓN AASHTO | | Clasificación AASHTO | A-2-7 (0) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SISTEMA DE CLASIFICACIÓN AASHTO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Clasificación AASHTO | A-2-7 (0) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Ensayos de referencia:

La distribución granulométrica corresponde al Informe de ensayo N°496-25 SU24
El límite de Atterberg corresponde al Informe de ensayo N°548-25 SU23


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Laboratorio Geofal S.A.C.

