

Dam: **Porce II**

Country **Colombia**

River **Porce**

6°48'21.25"N 75°08'53.13"W

6.805903 -75.148094

Owner/Client **EPM (Empresas Públicas de Medellín)**

Designer/Engineer **INTEGRAL S.A.**

Contractor **Dragados y Construcciones S.A. (following Astaldi S.p.A., CMC, Federici, Recchi, Topco J.V.)**

Purpose (code) **H**

Site start **01.11.1994**

RCC start **10.12.1996**

RCC completion **03.09.2000**

Site completion **30.03.2001**

Height (m) **123**

Length (m) **425**

Volume of RCC ($m^3 \times 10^3$) **1305**

Total volume ($m^3 \times 10^3$) **1445**

Reservoir capacity ($m^3 \times 10^6$) **211**

Upstream slope **0.10**

Forming of upstream face (code) **(14)**

Downstream slope **0.35**
0.75

Forming of downstream face (code) **(14) ***

Spillway slope **0.75**

Forming of spillway face (code) **(13)**

Depth of layers (mm) **300**

Depth of lifts (mm) **300**

Cement content (kg/m^3) **132**
120

Pozzolan content (kg/m^3) **88**
80

Code for pozzolan **(N)**

RCCDAM Unique Serial No. **RCCDAM0239**

Under Construction



RCCDAM0239UC

Completed Dam



RCCDAM0239CD

Google Earth



RCCDAM0239GE

Guide to Abbreviations

Purpose

- E Environmental
- F Flood control
- G Groundwater recharge
- H Flood control
- I Irrigation
- N Navigation
- P Pollution control
- R Recreation
- W Water supply

Facing method

- (1) Traditional concrete against formwork
- (2) Traditional concrete against formwork with external geomembrane
- (3) RCC against formwork
- (4) RCC against formwork with external geomembrane
- (5) Traditional concrete against precast concrete panels
- (6) Traditional concrete against precast concrete panels with geomembrane
- (7) RCC against precast concrete panels
- (8) RCC against precast concrete panels with geomembrane
- (9) RCC against precast concrete panels with hot poured membrane
- (10) RCC against precast concrete blocks
- (11) Reinforced conventional concrete cast before RCC placement
- (12) Reinforced conventional concrete cast after RCC placement
- (13) Reinforced concrete cast against precast units or slip-formed facing elements
- (14) Slip-formed/extruded facing elements
- (15) RCC supported by fill shoulders
- (16) Mechanically compacted unformed face of RCC
- (17) Unformed face of RCC
 - ' GEVR/GE-RCC
 - * Stepped face

Pozzolans

- (-) No Pozzolan Used
- (C) High-lime flyash (ASTM Class C)
- (F) Low-lime flyash (ASTM Class F)
- (M) Milled sand
- (N) Natural pozzolan (ASTM Class N)
- (R) ROLAC (mixture of flyash and slag with or without limestone fines)
- (S) Ground-granulated blast-furnace slag
- (L) Mixture of GGBFS and limestone fines